

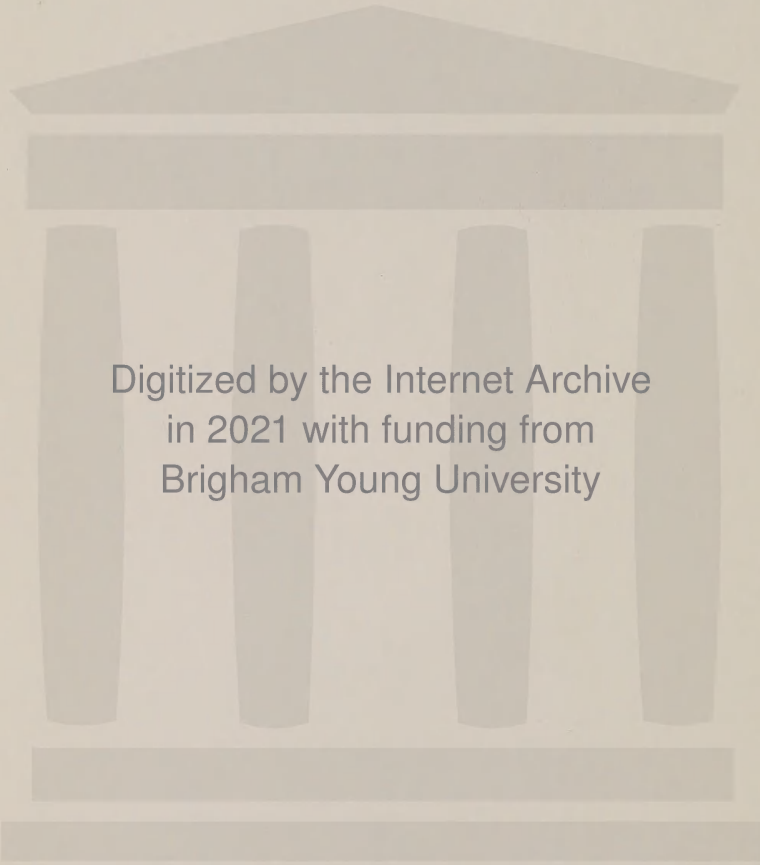


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# AMERICAN DYESTUFF REPORTER

## VOLUME 6

## 1920

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# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 1

Jan. 5, 1920



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By A. Kertesz





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, January 5, 1920

No. 1

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## "EVENTUALLY—WHY NOT NOW?"

**In Many Ways 1919 Failed to Meet Specifications, but Its Successor Will Have 527,-  
040 Minutes in Which the Senate Can Act**

**W**ELL, he's here at last—got in just at midnight of December thirty-first—and Heavens! what a fuss they *did* make over him. Well they might, for we don't have the pleasure of welcoming a brand new Year every day, and this one seems to give every promise of etc., etc., etc. Sure he does! You know it and we know it and everyone knows it. Doubtless you told the neighbors so at the time. It is difficult to resist the inspiration which is prone to well up in every human breast on the knowledge that the dawning of a fresh Gregorian or fiscal or whatever it is they call it, year is upon one, and that here is the big chance to start fresh and make it what is technically referred to as a Wonder.

Yet when one thinks of all the promise which 1919 gave not so very long ago, and then considers the results of its passing, anything in the line of the Pollyanna school of literature seems, somehow, to ring a little hollow, or to be tintured with a wee drop or two of the product which is produced at the

plant of that well-known firm, Gall & Wormwood, Inc. Certainly 1919, from which so much was expected, did not live up to the references given by his former employers.

Nevertheless, if this is to be the spirit of what is to follow, or to be THE REPORTER'S manner of greeting the New Year, our readers could scarcely be blamed for taking swift flight and deserting us in favor of something more optimistic. And this we would not have for any number of reasons which we might mention, the principal one being that it is not at all our spirit and, so far from abandoning our optimism and dragging out the tremolo stop preparatory to playing something weepy in a minor key, we never felt more chipper and full of fight than we do right now. In fact, the prime purpose of this New Year's effusion is to notify all elements of the dye making and dye consuming industries that we intend to keep right on doing business at the old stand, that we shall continue to come out in these columns each week and perform antics



for the amusement of such as care to trail along with us—and for the possible derision of some—that we have not found anything which has altered our determination to be just as uncompromising where we believe the interests of the American dye industry to be concerned, and to be just as plain-spoken and as independent (and possibly just as fresh, some may claim) as we ever were in the past. It is the inalienable and hereditary right of all publishers to say these brash, bold things every once in a while; hence we are only taking advantage of our prerogative.

But don't you forget that there is to be no weakening either in principles or practices; there is a rather important issue, thus far ignored by that portion of the dye and textile trade press which have published numbers since its appearance, which we desire ardently to take up immediately. But no matter; this is not the time for it. It will keep very well until next week, when things begin to liven up a little.

Our optimism, we assure you, merely grows more durable as the years pass, and our faith in the future of the American dye industry and its potential usefulness to the entire country, is in no wise dimmed. It is only that we have been compelled to go a little slow on predictions, forecasts and what not having seen the unconscionable length of time required before Things can Actually Happen. Therefore, let us unite in giving three cheers for the New Year, thus: "Hurrah! Hurrah! HOO-RAH!"—and a Tiger! so that no one shall accuse us of neglecting the formalities. And now to business.

This New Year is the twentieth year of the Twentieth Century. Being a leap-year, it brings with it a Presidential election, which ought to be of considerable interest; proposals, no doubt, for many a wealthy but bashful bachelor, and the clean-cut, outstanding realization that now or never must the dye industry of this country make its supreme effort to secure the protection which is its need and its right as a dominating factor in national preparedness,

both military and economically.

Because it is one of the years selected for straightening out the calendar under which we live, it will contain 366 days instead of the conventional 365, and will have in it some 527,040 minutes instead of the usual number. More than half a million minutes should give the Senate plenty of time to attend to the industry and get the Treaty settled without straining itself, despite the fact that it is going to have a busy year of it.

Last May the Longworth bill was introduced before the House and was referred to the Committee of Ways and Means. As before suggested by this publication—in a moment of frivolous abandon, of course—the committee found the ways and the industry furnished the means, and the latter part of the following September at last saw the measure passed, licensing feature and all. During the interim and up to the moment of passage there were, of course, some very harsh things said about the licensing clauses of the measure, but in spite of all that, reason prevailed, an understanding of the vital need of the bill was registered upon enough Representatives to give it all it required in the way of votes, and altogether the House made a good job of it notwithstanding.

Then it went to the Senate, already harried and hounded to death about the Treaty, and for the ensuing delay one cannot conscientiously blame the wearers of the toga. They had enough to contend with during the closing half of the session completed on December 20 to have justified postponing a consideration of the bill.

But when it is that one considers *why* they were being so harried and generally heckled, and what was the real cause of the Treaty delay which produced the dye bill delay, and the pettifoggish methods by which the Penrose resolution was handled, then patience becomes a virtue indeed. The point is that whatever they may decide to do with the Treaty eventually could have been decided just as well months ago.

If reservations were desired—why



then, name your reservations, gentlemen, and take action. Bless your souls, that's what you're *for*; nobody's going to heave any rocks at a man who does his work faithfully and efficiently. The Treaty is long, yet after all, there are not so many important issues raised but that they can't be boiled down, crystallized and spread out for all to see clearly, in a fortnight. Other nations there were which had as much at stake as we, yet they did not need half a year of wrangling before they found out what a majority wanted. If it is your desire to protect this country to the limit—which should be done before all else—a reservation upholding the Monroe Doctrine and another retaining the right of Congress to direct the movements of United States troops would have served this purpose well. Or there could have been added as many interpretative reservations as may have been thought necessary. But it should have been *done*, to the end that other big,

vital matters could have been looked after and the country partially removed from its present tension.

There is bound to follow enough nervous strain, after every big conflict, without adding to it by infantile vacillation and bickering. And one of the first moves on the part of any government should be to take steps to see that such a conflict does not happen again—or in the event of its happening, to be prepared to meet it. Just because Americans as a race are gifted with the faculty of responding with extraordinary speed to demands of the nature made upon them in 1917, that is no reason why even the minimum of time we *did* use should be wasted. Think what might have been the result if we could have had a flying start! And think of the lives that could have been saved!

No, without leaning to either party, common sense tells anyone that it is not right or fair to jeopardize the destinies

(Concluded on page 9.)

**AMERICAN DYESTUFF REPORTER**

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Pointed solely toward the welfare and growth of  
 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

**"SO THAT WAS 1919!"**

Good morrow, all; what cheer, what  
 cheer

To welcome in the coming year!

Another cycle annular

Has Brodied off the calendar

To parts unknown; but hard apace

The new one speeds to take its place

As Nineteen-twenty, lurching, reels

Around the corner on two wheels

And, halting sharp, surveys aghast

The dreary ruin of the Past.

"*What cheer?*" he shrieks, and tugs his  
 hair

As full the horror dawns—but there!

What's went is gone; what's did is  
 done—

The Glad\* New Year is well begun.

\* \* \* \* \*

When Nineteen-nineteen ambled in

Amid a most resounding din,

It led a lot of us to state:

That all were pink and roseate.

The Boche had cried, "These Yankee  
 fools

Know less than nothing of the rules

Which guide a well-conducted war—

And so, we'd rather play no more!"

The Armistice, the Hunnish crew

Affixed Teutonic hen-tracks to,

(Which means they signed) and all did  
 hope

That Reconstruction was the Dope!

\* \* \* \* \*

Well, so it was—but Fate has bucked

Our best-laid plans to reconstruct.

For Nineteen-nineteen's ways were  
 crude

And hopeless chaos has ensued;

Its barren months have little brought

\*Poetic license.

Of all the Things Which Should to  
 Ought,

And France is terming it, we hear,  
 Most properly, the Wasted Year!

\* \* \* \* \*

The Hun, 'tis true enough, is broke;  
 He's placed his choicest duds "in soak,"

And must, perforce, to gain a meal,

Ge-beg, ge-borrow or ge-steal!

"Yet—what of this?" we may inquire;

Domestic fat is on the fire.

Our own predicament is one

Not unamusing to the Hun.

Economists have all declared

Our trade is like to be impaired

Because, while business isn't slow,

The banking funds were ne'er so low

And credit's vastly swollen up—

Inflated—like a poisoned pup,

And hence, we're sure to face, we're  
 told,

A panic, e're the New Year's old!

\* \* \* \* \*

Aside from this, full many eyes

Are being cast on German dyes

Full covetous—which isn't wrong

Except—they shouldn't look so long!

Nor yet so hard, so hungrily

That all observers well may see

The mute appeal of those whose will

Would choke the struggling Longworth  
 bill

And knock it cold! 'Tis well enough

To dye our goods with German stuff

Which cannot yet at home be made—

But who desires the Hunnish trade

That flourished prior to the fray?

Come, *who* desires this trade? we say

If such there be, go, mark him well;

Perhaps a blackened eye would tell

In fitting style, to those who hark,

The value of a German mark!

Go, demonstrate at proper range

The fearful drop in Hun exchange . . .

. . . Nor give ye pause; this having  
 done

Go straight and black his other one!

\* \* \* \* \*

But let's resume; the Longworth bill

The Senate's gravely hatching still

But when the chick will come to scratch

Is better known to those who hatch.

Last May, it seemed, a month or two

Would well suffice to see it through,  
 And then its needs, our Solons swore,  
 Were yet another month—or more.  
 Cant followed ranting, to and fro  
 The windy torrents swept—and so  
 In "movie" terminology  
 On went the Sennett comedy  
 And still on New Year's Day we find  
 It simply can't make up its mind!

\* \* \* \* \*

Ye Gods! What else to tempt our ire?  
 The Treaty yet is hanging fire,  
 And where the Covenant will land  
 We wager few can understand.  
 Just now one counts the cost too dear  
 To spend a nickel for a Beer  
 (Of  $\text{CH}_3\text{OH}$  beware!)  
 While those whose cellar shelves are  
 bare,

And cannot bear to lose their foam,  
 Have started Bruin in the home!  
 No matter where the eye may turn  
 'Twill find Unrest does brightly burn;  
 The Paper Cap, or Labor's pal,  
 The climax capped of Capital,  
 While Public, melancholy wight,  
 Has donned his cap to say "Good  
 night!"

Poor Russia, wrecked by guileful tricks,  
 Is domineered by Bolsheviks,  
 And here among a people free  
 The Reds, as anyone can see,  
 Have wide their Crimson flag unfurled.  
 —Some year, we'll notify the world!

A survey of the knitting situation as to production for 1920, as well as the relation of knit goods prices to the cost of labor, yarns and silk, will be among the questions to be considered at a general meeting of the National Association of Hosiery and Underwear Manufacturers to be held in New York City, January 13. The place for the gathering has not as yet been designated.

To manufacture chemical products, etc., the Sumner Chemical Products Company has been incorporated under the laws of New Jersey with a capital of \$150,000. Offices of the company will be located in the Essex Building, Newark.

## "EVENTUALLY; WHY NOT NOW?"

(Concluded from page 7.)

of millions of people, nor the lives of their dearest and closest of kin.

The latest anent the Longworth bill is that the members of the sub-committee of the Senate Finance Committee feel that the licensing measure would be too radical a proposition to place before the main body. But this is an era of radical moves, and in any case, radical situations must be met by moves which shall be in keeping with their abnormalities. The situation of the dye industry in this country is something entirely new for us. The Senate, we take it, would not hesitate to create and even subsidize munition plants if a sudden need arose. But the dye industry neither asks nor needs subsidization. It does not even expect a temporary monopoly. The licensing feature of the Longworth bill would not tend in any way to create a dye trust in this country.

Let us assume, for argument's sake, the textile industry dominated here by a dye trust. Trusts have been dealt with by the Government many times in the past and could be again—and promptly. But let us imagine the German trust in control of the situation. It ought not to be hard to imagine this; just remember how things were in 1914 and before. The Government, it will be said, could also control the German kartel. Of course it could, but in the absence of a dye industry here, what would follow!

So it all comes back to the original proposition in the end. In the words of a famous bit of advertising copy: "Eventually; why not now?"

To deal in foodstuffs, dyes, oils, chemicals, etc., the Jackbro Products Corporation has been incorporated under the laws of New York with a capital of \$100,000. Headquarters will be in Manhattan and the incorporators are J. C. Brown, A. Rosenstein and I. M. Bellert.







## INFLUENCE OF THE ATMOSPHERE ON WOOL

By A. KERTESZ

*(Read before the Association of German Chemists in 1916 and suppressed by the German Government during the war.)*

It has surprised many intelligent observers that the appearance of the clothing worn by many of the soldiers on leave had very much altered, in the surface of the cloth had completely disappeared, laying bare the threads of the cloth so that the uniforms looked like badly-worn cotton material.

According to the present state of our knowledge, the following could be possible causes of this:

1.—That the raw material was of low quality.

2.—That the wool had been deteriorated in the dyeing or in course of manufacture.

3.—That the uniforms had been affected by conditions prevailing on active service, for example, poison gases, or gaseous products from high explosives.

4.—That the faults had been caused by too severe or too alkaline steaming during the disinfecting process.

The last named suggestion was considered very probable, because the dirt and earth present in the uniforms might easily react alkaline when steamed and thus cause the damage.

The examination of hundreds of garments taken from the different hospitals proved, however, that the above suggestions as possible causes of the extraordinary deterioration of the uniforms were wide of the mark, because clothing, which did not come within the scope of the above possible causes was equally badly affected.

Further experiments showed without any possibility of doubt that the effect on the cloth was due in the first place to the action of atmospheric influences on the wool, and that the observed differences in the uniforms were due to the degree and length of exposure to which they had been subjected. The hitherto accepted idea that the appear-

ance of the cloth was an indication of the exertions and fatigue through which the wearer had passed was proved to be incorrect in its general form. The change in the cloth was rather an exact measure of the length of time the wearer had been in the open.

These faults had not shown themselves hitherto on this scale, because uniforms had never previously to this war been submitted to so long, continuous, and severe exposure to atmospheric influences, so that these faults had now developed after months instead of after years, when they were attributed in the latter case to general wear.

It was noticed by A. Rechberg, in Hersfeld, that atmospheric influences had a strong action on the wool fiber. This firm found in 1913 on making long exposures of German blue-gray uniform cloth, made respectively from two blends of colored wool in which white wool and chromed wool were used for blending purposes, that the white wool in the mixture became tender while the chromed wool did not.

The experiments carried out by me on this basis completely confirmed the supposition of Rechberg, and showed that wool on exposure to the atmosphere became tender and finally completely destroyed. The destruction was most pronounced if the wool was in its natural state. The destruction is most pronounced on white scoured wool, less pronounced on dyed wool, and still less pronounced on chromed wool. Acid salts, alum, or iron salts delay the destructive effect on the wool, but not to the same extent as chrome salts. The effect is the strongest in the summer months with most sunshine.

The action is most easily seen if a cloth made from a mixture of dark dyed wool and white wool is exposed to the atmospheric influences and carefully examined from time to time. The cloth begins to grow darker and darker after three to four months' exposure, due to the fact that the white wool falls out and the cloth becomes quite dark and tender after a few more months.

On examination of uniforms which had been worn on active service it was estimated that the markedly changed appearance of the cloth could also be attributed to the action of the sun and weather. This was confirmed by fastening blue-gray uniforms onto a board and exposing them for eight months. At the end of this period the cloth had completely lost its wool character, and after the dirt and dust had been removed possessed exactly the same bare appearance that had been noticed in the case of many uniforms returned from active service.

Experiments were now made by exposing for eight months undyed cloth which had been previously treated as follows:

1. Undyed gray cloth.
2. The above boiled  $1\frac{1}{4}$  hours with 4 per cent sulphuric acid.
3. The above boiled  $1\frac{1}{4}$  hours with 4 per cent formic acid.
4. The above boiled  $1\frac{1}{2}$  hours with 3 per cent bichrome,  $2\frac{1}{2}$  per cent tartar.
5. The above boiled  $\frac{3}{4}$  hour with 3 per cent potassium bichromate, 6 per cent lactic acid, 1 per cent sulphuric acid.
6. The above boiled 1 hour with 2 per cent sulphuric acid and then 2 per cent bichrome added and boiled  $\frac{3}{4}$  hour later.
7. The above boiled 1 hour with 2 per cent formic acid and then 2 per cent bichrome added and boiled  $\frac{3}{4}$  hour longer.
8. The above washed  $\frac{3}{4}$  hour at 122 deg. Fahr. with 2 gr. ammonia,  $\frac{1}{2}$  gr. hydrosulphite,  $\frac{1}{2}$  gr. universal oil per liter.

#### BEFORE EXPOSURE

	Strength	Elasticity
1 .....	35	78
2 .....	35	75
3 .....	33.4	76
4 .....	34	72
5 .....	33.2	79
6 .....	35.4	76
7 .....	35	72
8 .....	33.2	76

#### AFTER EXPOSURE

	Strength	Elasticity
1 .....	23	53
2 .....	27.4	62
3 .....	28	65
4 .....	28	64
5 .....	29	64
6 .....	28.2	67
7 .....	27.6	65
8 .....	26	60

Test on the rubbing machine after preliminary extraction with ether.

#### LOSS AFTER EXPOSURE

1 .....	65 per cent
2 .....	48 per cent
3 .....	40 per cent
4 .....	50 per cent
5 .....	31 per cent
6 .....	49 per cent
7 .....	40 per cent
8 .....	61 per cent

The experiments also showed that the softer the cloth handled the severer was the effect of exposure; for instance, cloths treated with lanolin on the anticipation that the lanolin would protect the cloth were more affected than cloths not treated with lanolin.

The physical properties of the cloth play a part in that cloths with a soft handle are more sensitive to atmospheric influences than cloths with a hard handle. An examination of the above results shows that No. 5 gave the best result, that the most effective protection is oxide of chrome, and the cloth that contained the most oxide of chrome was the best, thus No. 5 is better than No. 4, owing to the lactic acid producing more oxide of chrome than tartar. Nos. 2 and 3 behave like Nos. 6 and 7, while No. 8 behaves similar to No. 1 which suffered the most.

The further experiments were directed to find out which of the atmospheric influences had the greatest effect. There comes into consideration besides moisture the oxygen or ozone of the air and the light rays.

Woolen yarn and cloth were submitted for several weeks to the action of ozone. A bleaching action was soon

observed, and after eight weeks' exposure the fiber had deteriorated 35 to 40 per cent in strength. The alteration in the wool caused by the action of the ozone was quite different from that caused by atmospheric influences. Ozone does not cause the fabric to lose its soft woolen character, whereas on exposure to the atmosphere the wool loses its woolen character and grows increasingly hard. Also on exposure to ozone there was no difference between chromed and unchromed wool.

The experiments in which different wool samples were exposed to the illumination of a mercury vapor lamp, which is known to be very rich in ultra-violet rays, were much more decisive. In a very few days it was manifest that exactly the same results were obtained as by exposure to the atmosphere. The employment of this lamp offered the additional advantage that absolutely comparative tests could be carried out in the laboratory without taking the weather into consideration. That the reaction of the lamp was similar was shown by the fact that the differently exposed wools behaved almost the same and that the tendered wool in both cases showed the same characteristic reactions.

The surface of the exposed wool showed the surprising property of being much more readily attacked by alkali than non-exposed wool, in that weak soda or ammonia solutions had a solvent action on the same at moderate temperatures. If solutions obtained by this method are submitted to the Biuret reaction for albuminous bodies. (Becke, *Farber Zeitung*, 1912, p. 45; 1919, p. 101) experience has shown that the reaction is very useful for determining to what degree the wool has deteriorated.

#### METHOD OF EXAMINATION

Samples of cloth 4-5 cm. long by 2-3 cm. wide were allowed to stand for 1 hour at 60 to 65 deg. C. in a test glass containing 10 c.c. soda ash solution (1 per cent) after being well wet-

ted out, during which process rubbing must be avoided. The soda solution was then poured off and 10 c.c. normal caustic soda and 2 c.c. copper sulphate solution (1:20) added. After some time the affected wool shows a violet coloration, which is compared with a prepared scale. It may be inferred from the sensitiveness to alkalies that the breakdown of the albumen molecule is caused by the light rays assisted by the moisture and oxygen of the atmosphere. This inference is supported by the fact that pure unweighted silk suffers the same deterioration and that the degree of the deterioration may be estimated by the Biuret reaction.

Only one difference shows between wool and silk in that tender wool shows a marked acid reaction, because the sulphur in wool oxidizes to sulphuric acid when it breaks up, while there is no acid formed in the case of the silk because the silk molecule contains no sulphur. The fact that raw unweighted silk is sensitive to light rays has already been proved earlier by Ristenpart (*Zeitschr. f. angew. Chemie*, 1909, Sec. 18).

Moisture alone does not play an important part, because the same reaction is obtained with the mercury vapor lamp whether the cloth is wet or dry. Further experiments will be necessary before it can be determined whether individual colors increase or decrease the absorption of the light rays. Experiments as far as they have been completed show that dark shades deteriorate less rapidly than pale shades.

The degree of deterioration of the wool may also be determined by dyeing with Methylene Blue in an acetic acid bath at 122 deg. Fahr. The deteriorated wool dyes much heavier than the non-exposed wool.

Before practical conclusions may be drawn from the above results further study and many experiments will be required.

For the moment I may recall my earlier publication (*Farber Zeitung*, 1908, No. 13) that wool treated with acids and mordants increased in



strength. It may now be accepted that this increase in strength is coincident with its increased resistance to atmospheric influences.

One may rightly assume that a closer study of wool will enable a better wearing cloth to be manufactured than hitherto. The above experiments also show that wool does not possess the highest wearing properties, and that these may be improved.

Later experiments have confirmed all the results given above.

The cloths most resistant to atmospheric influences are those which contain 1 per cent oxide of chrome calculated on the weight of dry wool. The difference may easily be seen by exposing side by side for a few months untreated woollen cloth and cloth treated with chromium acetate 3 to 5 deg. Be. Moreover, it may also be stated that sulphuric acid used in dyeing wool is detrimental to the resistance of the wool to atmospheric influences, while organic acids are much less detrimental.

The substitution of mineral by organic acids is strongly recommended, at least for fabrics for which the best wearing properties are required.

For the testing of deteriorated wool the Biuret reaction may be strongly recommended. With a little practice reasonably accurate determinations may be made of the degree of deterioration.

—*Textiles.*

---

The Ranlo Manufacturing Company at Ranlo, near Gastonia, N. C., contemplate building a duplicate of their present mill which has 6,000 spindles with looms on automobile tire fabrics.

## A NEW DEVELOPING METHOD

An American patent protects a method of developing direct cotton colors, especially blacks. It is claimed that by the use of the new developer a black can be obtained equal in fastness to Zambesi Black and with a superior luster, the process having a less deleterious effect on the fabric. The new process is suited not only for the amido group of dyes, with which it gives a superior color and finish, but for practically any developed color.

After dyeing with the direct dye in the usual way, the fabric is treated for fifteen minutes in the diazotizing bath prepared in:

1/2 lb. sodium nitrite crystals.

1/2 lb. sulphuric acid.

100 gals. water.

The bath is used at the room temperature, the quantity given above being for 100 lb. of material.

The goods are then thoroughly washed with cold water and subjected to the developing bath. This should be done promptly since light affects the fabric when in this condition. This developing bath is prepared as follows:

80 gr. acetic acid 30 per cent.

80 gr. chloroform.

80 gr. zinc acetate.

10 gr. aqua ammonia 26 per cent.

880 gr. cold water.

5 lb. beta naphthol.

1 lb. alpha naphthylamin.

3 lb. phenol crystals.

8 lb. caustic soda.

The mixture is heated until the materials are dissolved, and 75 1/2 lb. sodium chloride is slowly added and thoroughly mixed. Then 5 lb. nitric acid or hydrochloric acid is slowly added. The whole is then cooled off and pulverized, re-

sulting in 100 lb. developing material. Four to eight oz. of this developing material is diluted in sufficient boiling to form a solution, to which is added sufficient cold water to overflow the 100 lb. of fabric hitherto mentioned.

The acid-prepared fabric is allowed to remain in the developing bath for about fifteen minutes during which the shade changes to a deep green black, the color is permanently set, and the high luster-finish is given. The fabric is then removed from the bath and is rinsed in warm water and soap to remove the superfluous developer and any other loose foreign matter, this also testing the fabric for permanency of color.

### ADHESIVE DRESSING FOR SILKS

The high price of gum arabic and allied products has led to extensive adulteration in connection with the finishing of silks, not merely by the admixture of cheaper, inferior gums with cherry, plum and similar (cerasin) gums, but also by the addition of artificial products, made from starch.

When the gum is in the state of lumps, or granules, adulteration with inferior varieties can be detected without much difficulty by the aid of the microscope.

In the case of powdered gum, however, such adulterations are difficult to prove, although chemical reactions will leave no doubt. Powdered gums may generally be suspected of containing dextrine.

The adulteration with gums containing bassorin or cerasin, such as cherry, plum, almond, or apricot gum, can be detected in many cases by simple examination or purely mechanical tests. In this case the solubility test soon removes doubt. Bdellium gum, which also is often used as an adulterant, has a greasy feel, and sticks to the teeth when chewed. In a few cases the determination of the specific gravity is useful, bdellium gum, for instance—which moreover, is sufficiently characterized by liberating ammonia on dis-

tillation—having the sp. gr. 1.371 at 175 deg. C., whereas that of gum arabic is considerably higher.

Adulteration with gums only partially soluble in water, can easily be detected by treating the suspected sample with water, these gums merely swelling up or only dissolving in part.

To detect the addition of cerasin or bassorin gums to gum arabic, the gum is soaked in water at 15 to 20 deg. C. The portions containing arabin dissolve, and water is added until a very thin solution is obtained, from which the insoluble portions and impurities will settle down to the bottom in a short time. The insoluble portion is collected on a filter, to drain, and is then boiled with sodium carbonate solution, whereupon the cerasin, etc., will dissolve, leaving the impurities behind.

If the gummy residue, remaining after decantation and filtering, dissolves under this treatment without remainder, no cerasin gum was present in the sample. In this event, the lumpy deposit left on treating the gum with water is separated by decanting the solution, and then brought into the filtrate by the aid of much warm water. If the quantitative determination of organic and inorganic impurities has to be made, the filtrate from the portion boiled with sodium carbonate, gives a precipitate containing all the metagummic acid, when acidified and treated with 90 per cent alcohol. Provided cerasin be present, it is evident that the method may also be applied for the quantitative determination of cerasin and bassorin in certain cases, provided filters, weighed and dried at 100 deg. C., be used for collecting the several components.

Tragacanth is easily detected in powdered gum by means of the microscope, inferior tragacanth showing starch granules, and all kinds exhibiting fragments of the cell walls from which they have been derived.

Flour and starch are also easily identified under the microscope.

There is also little difficulty in detecting dextrine in arabin gums, owing to its characteristic behavior towards

various reagents. Dextrine always contains more or less glucose, a red precipitate occurring when the sample is heated to above 70 deg. C. with alkaline copper solution, indicates dextrine. In presence of any considerable proportion of arabin, 5 to 8 drops of a concentrated solution of ferric chloride will gelatinize 5 c.c. of an aqueous solution of gum (1 part of gum, 2 parts of water). If dextrine be present, merely a whitish turbidity will occur when the jelly is shaken up with water; and in the case of pure gum, the jelly will not dissolve.—*Posselt's Textile Journal*.

### BRITISH WOOL TEXTILE INDUSTRIAL COUNCIL DISCUSSES LABOR DISPUTES

The first annual meeting of the National Wool (and Allied) Textile Industrial Council was held at Bradford, England, on November 12. The report of the council for the year was adopted.

The report stated that the council consists of affiliated employers' associations and trade unions. The membership of these associations cannot at present be given, but of the 325,000 persons employed in Great Britain and Ireland in the wool textile trade, 250,000 are employed by firms which are members of affiliated associations of employers. Of the remainder a number are members of trade unions affiliated to the council, but are employed by firms not members of the affiliated employers' associations.

The organization of the council consists of itself, as representing England and Wales, and of three district councils, namely, the Northern Counties District Council with thirty-two members a side, the Welsh District Council with eight members a side, and the West of England District Council. This plan of district councils has been found to work quite well.

The first great problem considered by the council was that of hours of labor, and on March 3, 1919, the wool textile trade as a whole went on to a 48-hour week. Generally speaking, the 48-hour week was adopted without any provi-

sion for extension. But in some instances, to maintain the balance of production, it was found necessary to provide for various conferences of sections of the trade, and these resulted in the whole matter being settled with due regard to the interests of the sections of the trade and of the peculiar circumstances of the various districts.

The report adds that one of the provisions of the rules of the National Wool Textile Council is that before a dispute may take place notice shall be given that such dispute is apprehended, and, if the emergency committee of the council concurs, the question in dispute should be referred to the arbitration of a court selected from panels of representatives of employers and employed by the council. Nineteen such disputes have been notified to the secretaries. Of these, five have been referred to arbitration, three are outstanding, and the remaining eleven have been settled. The council believes it has already rendered useful service to the trade, and that this is merely an earnest of greater services in the future when further experience has been gained.—*U. S. Consular Report*.

Prevented last year from holding its annual convention because of the influenza epidemic, members of the National Wool Growers' Association will get together for the delayed event on January 19, 20 and 21 at Salt Lake City. The convention will follow that of the Utah Wool Growers' Association on January 17.



## NOTES OF THE TRADE

Burglars, drilling the safe at the plant of the Roessler & Hasslacher Chemical Company, recently succeeded in making away with gold and platinum valued at about \$75,000. The plant of the company is located at 52 Fayette Street, Perth Amboy, N. J.

Announcement has been made to the trade that the Salt's Textile Company, of Bridgeport, Conn., has increased its capital stock from \$3,000,000 to \$5,000,000. At the same time, it is understood that an enlargement of the company's plant is under consideration.

Under the laws of Delaware, the Reading Extract Company has been incorporated with a capital of \$100,000. The incorporators of the new concern consist of Lawrence C. Briggs, Dr. Rudolph Pabeska and W. A. Baer.

Announcement has been made, effective January 1, that George Wolf & Co., Inc., of 73 Leonard Street, New York, has taken over the business of George H. Wolf, trading as Wolf & Erskine. The corporation will convert cotton, and silk and cotton, fabrics.

With a capital of \$3,000,000, the Worrell Chemical Corporation has been incorporated under the laws of Delaware.

January 3 was the date set for the beginning of the movement of German vat colors to this country. It is planned to have the entire shipment on the move by January 18. They will travel down the Rhine to Rotterdam, and upon arrival in New York will be rearranged for domestic distribution.

The next series of Government wool auctions is scheduled to get under way on Wednesday, January 7, and will continue through Saturday. The time limit for taking deliveries has been reduced to fourteen days instead of the thirty-day rule which prevailed in December.

To deal in silk bolting cloth and mill supplies, Tobler & Co., Inc., has been incorporated under the laws of New York with a capital of \$40,000. The company will be located in Manhattan, and the incorporators consist of J. Tobler, A. C. Kuhn and J. A. Kenny.

The Mesidor Silk Importing Company has been incorporated under the laws of New York with a capital of \$100,000 to deal in textiles. Headquarters of the new concern will be located in Manhattan, and the incorporators include F. M. North, E. M. Baumgart and F. Spiro.

Under the laws of New Jersey the Hudson Piece & Skein Dye Works has been incorporated. The capital of the new company, which will carry on a general dyeing and cleaning business, is \$100,000, and headquarters will be at 934 Main Street, North Bergen, that State.

To manufacture silk and other textile fabrics, the Creston Mills, Inc., have been incorporated under the laws of New Jersey with a capital of \$100,000. Offices of the company will be located in Putnam Street, Paterson.





# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## DYES AND THE TARIFF COMMISSION

Some Recommendations and Activities of  
the Past, Together with Plans for the Future

FOR purposes of record, so that readers may have the information at hand for future reference, the REPORTER presents this week a resume of the activities of the United States Tariff Commission in connection with the American dye industry, since the creation of the Commission by the Tariff Act of September 8, 1916, as furnished by the third annual report which the Commission recently issued. It is believed that this brief review should be of interest, although it forms but a small part of the work of the Commission and the telling takes up but little of the report, and that the news that the "costs and prices" investigation in the dye and other industries is going forward, aided by increased facilities, should be welcome. The first part of what follows, dealing with the dye and sulphur industries, is taken from a detailed report of the work of the Commission, schedule by schedule, while the latter portion, heralding the preparation of the "costs and prices"

report to Congress, comes from a separate part of the document:

### SCHEDULE A: CHEMICALS, OILS AND PAINTS

Dyes and other coal-tar chemicals.— On December 12, 1918, the commission sent to the Committee on Ways and Means a report, entitled "Dyes and other coal-tar chemicals," which discussed, in detail, Title V of the act of September 8, 1916, imposing duties on dyes and other chemicals of coal-tar origin. The report pointed out the ways by which the evident intent of Congress in passing this legislation may be evaded. Attention was also called to certain questions on which, in view of developments which have occurred since the passage of the act, Congress might wish to reconsider its original policy. The commission suggested forty-five amendments to the language of the present law, calculated to give more complete effect to its obvious purpose.



Census of dyes and other coal-tar chemicals, 1918.—Under the continuing direction of the President, in anticipation of certain administrative requirements of the revenue act of September 8, 1916, the commission completed and published a second census of dyes and other products of coal-tar origin, covering the year 1918. The results of this census are contained in a report, entitled "Dyes and Related Coal-tar Chemicals, 1918," transmitted on June 12, 1919, to the Committee on Ways and Means. A revised edition of this report was transmitted to the Committee on Ways and Means on July 15, 1919.

This census for 1918 shows that there is no insuperable obstacle to the growth of this industry in the United States. The finished products are now made almost entirely from American raw materials and intermediates. One hundred and seventy-six intermediates were made on a commercial scale, and in addition twenty-three others were made in relatively small quantities for sale, research, or experimental purposes. The intermediates most needed are now available, although many important ones are still missing, and the prices of many most needed are still abnormally high. The report shows that there were over 200 firms, including seventy-eight manufacturers of dyes, that manufactured coal-tar chemicals in 1918.

The total production of dyes in 1918 was 58,464,446 pounds, valued at \$62,026,390, which is an encouraging gain over the 1917 output. The report also shows that, with comparatively few exceptions, prices of individual dyes were lower in 1918 than in 1917 in spite of the general rise in wages and in prices of most other commodities. More than 300 different dyes were made in the United States during 1918. Many of the dyes which were lacking in 1917 appeared on the market in 1918. The report shows that the American industry is especially strong in the classes of dyes known as "azo," "sulphur," and "induline" dyes. Alizarin and two alizarin derivatives were made, but in amounts considerably below the normal

demand. These dyes are an important group of fast mordant dyes for wool. No dyes derived from carbazol were made in 1918, and only a bare beginning was made in the production of the extremely important class of vat dyes derived from anthracene, known as indanthrene dyes, which are fast dyes for cotton.

Important progress has been made in the production of synthetic medicinals, so that dependence on Germany is now at an end. Thirty-two different synthetic drugs of coal-tar origin were made during 1918. Three of these—*aspirin*, *salol*, and *acetphenetidin*—were in great demand during the influenza epidemic.

Pyrites and sulphur industry.—During the first session of the Sixty-sixth Congress, at the request of the chairman of the Committee on Ways and Means, the commission transmitted a report on the pyrites and sulphur industry for the use of the committee in consideration of the bill H. R. 5215. The tariff problem connected with this industry is greatly complicated by the fact that pyrites and sulphur are potential rivals in supplying the raw material for the manufacture of sulphuric acid, the largest of all chemical industries, and by the revolutionary changes in the competitive situation which have occurred during the war.

The only important use of pyrites is for the manufacture of sulphuric acid. Sulphur, on the other hand, has additional important outlets in the paper, rubber, dye, insecticide and other industries. Prior to the war pyrites exclusively was used for sulphuric-acid manufacture, and over 70 per cent of the consumption was supplied by Spain and Portugal. The United States is the world's largest sulphur producer, and prior to the war the domestic producers made no attempt to supply sulphuric-acid manufacturers in competition with pyrites. They were able to realize larger profits by maintaining the price of sulphur at \$22 per ton f. o. b. New York and supplying the sulphur required by other industries.

The war more than doubled the demand for sulphuric acid and at the same time interfered with imports of the raw material, Spanish pyrites. The demand was met in part by a 35 per cent increase in the domestic output of pyrites, but mainly by substitution of sulphur for pyrites, which resulted in an increase of more than 300 per cent in the domestic output of sulphur.

The competitive conditions in the sulphur industry alone have changed greatly during the war. The original French patents owned by the Union Sulphur Company, which formerly gave this company a practical monopoly of the sulphur market in this country, have expired, and later patents on modifications of this process have recently been declared void by the Circuit Court of Appeals of the Third Circuit. The Freeport Sulphur Company has developed a large output during the war. A third large company, The Texas Gulf Sulphur Company, began production on a large scale in March, 1919. It is expected that there will be sharp competition between these producers. Should this occur and these sulphur companies undertake to supply the requirements of the sulphuric-acid manufacturers in the United States, it may be assumed that the price of sulphur will fall below the pre-war level.

Under such conditions American pyrites producers could expect little, if any, benefit either from a duty on sulphur or one on pyrites. The serious competition which domestic pyrites producers face comes from American sulphur, not from imported pyrites.

\* \* \* \*

#### COSTS AND PRICES

The Tariff Commission is authorized by the act creating it to investigate "conditions, causes and effects relating to competition of foreign industries with those of the United States, including dumping and cost of production."

The commission stated in its second annual report that because of the worldwide industrial disturbance, due to the

war, the difficulties of obtaining reliable cost data, especially in foreign countries, were very great, and that any available information as to cost of production would have been of comparatively little value for tariff purposes. Although disturbances still prevail to some extent, especially in foreign countries, domestic affairs are relatively more settled. The commission believes that the time is now opportune for initiating cost investigations in certain industries which present acute tariff problems.

The first of these investigations undertaken by the commission is in the dye industry. Cost reports have been received from the principal manufacturers in this country, showing not only the cost of the important dyes, but also the cost of the fundamental coal-tar derivatives, known as intermediates. The returns from these reports are being tabulated and will form the basis of a report to Congress. It is the intention of the commission to obtain pe-

*(Continued on page 9.)*

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 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

**A HOPELESS MUDDLE**

Perhaps the wording of the above heading may be regarded by some as a rather exaggeratedly pessimistic description of the state of affairs now existing in Washington with regard to the dyestuff situation. Nevertheless it is our guess that the majority of both manufacturers and consumers of coal tar colors in this country will be inclined to vote that "the shoe fits."

Certainly something is wrong—extremely wrong—when a small body of presumably intelligent men such as compose the sub-committee of the Senate Finance Committee, cannot reach some sort of a conclusion upon a matter which has been discussed and re-discussed, battledored and shuttlecocked, set forth and re-hashed and served up in so many different styles and by so many people as the question of protection for the industry has.

Enough statistical matter, testimony and argument has been presented and allowed to escape upon the hallowed air of Congressional offices—including the House itself—to equal in volume the collected works of Thomas Carlyle. This is no mere bit of hyperbole, either; we have been making comparisons and were not a little staggered when the fatal truth was driven home. Much of this matter consisted of repetition, or differently worded expositions of the same facts, and it is doubtful if the best efforts of the brightest minds of the age could add one jot or tittle to the information which has already been laid before our Solons in one form or another.

No, there has been no paucity of data to account for the apparent indecision which marks the conduct of the Senate with the Longworth bill. All the necessary aspects of the situation from the standpoint of maker and user have been made plain not once but many times. All that remained after the hearings was to sift out the chaff, select the salient facts, fix the mind firmly upon justice and expediency, *forget precedent and politics*—and draw the logical, inescapable conclusion, whatever it might happen to be. It is more a question of the application of mathematics and business sense than anything else. No matter which way the sub-committee might have decided, we contend that there was nothing to cloud the issue and that a decision could have been rendered weeks ago.

Perhaps "A Hopeless Mystery" would be a better descriptive line for the situation. For if there is no mystery in the lack of definite recommendations which ought to have been forthcoming, then Mr. Webster was a badly mistaken man and wholly incompetent to compile an authoritative dictionary of the English language.

Who can really understand the sickening chaos which appears to be developing every hour? One can suspect, or even voice a very fair conjecture. But it is a puzzle, for all that, and one which can only be cleared up, no doubt, by an examination of the minutes of the recording angel who keeps cases on some of our legislators.

The licensing clause of the Longworth bill appears to have met with little favor from the Senators, who, unlike the members of the House, cannot seem to bring their faculties to bear upon the problem with any degree of clarity and vision. This fact being recognized, a substitute measure was proposed whereby the licensing clause should be stricken out and another, calling for unrestricted and direct importation of German or other dyes in accordance with a list of colors which were not being manufactured, nor for which substitutes



were not being manufactured, in this country, was introduced.

This, according to reports, raised such a united wail that nearly all the clocks of Washington and elsewhere stopped abruptly and had to be set going again by the speedy abandonment of any such suggestion. Details as to the proposed administration of this substitute measure are lacking; it was kept a close secret for some time, and it is likely the case that it presented features which would have proved highly objectionable.

But in the entire absence of anything to work upon, so to speak . . . what's to do, anyway? Out of the murky haze emerges one clear fact at least, and that is that the state of uncertainty, prolonged almost beyond endurance already, and the accompanying uncertainty as to the probable degree of its further prolongation, is producing upon the dye industry of this country an effect which is about as unhealthful as anything could be.

More "hearings" are being held. A despatch from the capital goes so far as to venture the opinion that it may yet take until the middle of next summer before definite action can be secured. This appears to be extreme—but if such chanced to be the upshot of the whole affair, who could lay claim to great surprise after the performances of the past year! And which dye manufacturers then—the German or American—would have control of our markets?

Action—we strive to speak as gently as possible—is imperative. If hearings with mortals as the principals prove unable to bring it about, let the Senate try a few spiritualistic seances, or toss a coin or consult the ouija-board—or anything, in short, which is even remotely likely to produce a result or two and end this suspense.

Unless something can be done soon, the country will have conclusive evidence that the Senate has fallen down on its job of lawmaking. And in any case the present muddle would argue crass inefficiency.

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## DYES AND THE TARIFF COMMISSION

*(Continued from page 7.)*

ridical reports upon these products for some time to come, in order that Congress may be accurately informed concerning the changes in cost and the progress of the industry toward stability.

The commission has also made a study of the cost of producing wool and mutton in the Mountain States, and such cost data will be incorporated as a portion of the report on the wool-growing industry of the world. The cost of producing refined sugar has also been investigated and the results of the field work are being incorporated in a report to be published by the commission.

As already stated, cost information from foreign countries is available now

in only a very limited degree. As an alternative, however, comparative price studies are feasible, and the commission is now making a study of such comparisons. The purpose is to compare not only foreign and domestic prices, but also domestic costs with domestic and foreign prices. In the dye industry, for example, our domestic costs are being compared with prices in the United States and with those in various foreign countries.

As conditions become more normal, the Tariff Commission plans to extend its inquiries in the field of cost of production. The accounting staff is being enlarged to meet the requirements of new investigations, and greater emphasis will be placed in the future upon the work of international cost of comparisons. Three new investigations are in contemplation—barytes and the barium chemicals industry, the silk industry, and certain phases of the ferro-alloy industry, and, in so far as the funds of the commission warrant, these will be pressed in detail.

### AN IMPROVED MERCERIZING PROCESS

An improvement in the process of mercerizing, recently patented by a Massachusetts man, is described by the inventor as follows:

This invention particularly relates to a method of mercerizing cotton or linen when interwoven with filaments of artificial silk known as viscose, while at the same time protecting such viscose filaments from deleterious attack by the caustic alkali. Viscose is a well-known plastic material obtained by special chemical treatment of cellulose. It is valuable for the production of artificial silk, not only because of the luster of its filaments but also because it is not readily inflammable.

Woven fabrics in which viscose silk threads have been interwoven with cotton yarns mercerized before such weaving are attractive textile products, but they are relatively expensive by reason of the additional manipulation of the cotton yarns required for their merceri-

zation. It is not feasible to produce such goods by interweaving unmercerized cotton yarns with viscose threads and afterward subjecting the woven fabric thus constituted to any mercerizing process or treatment heretofore practised or known. The caustic alkali solution customarily used for the mercerization of cotton or linen would seriously damage the associated viscose filaments and spoil the attractiveness of the composite fabric.

The caustic alkali may be prevented from injuring the viscose filaments while still retaining its efficiency for mercerizing the fibers of cotton yarn intermixed with those viscose filaments, by introducing into the solution of caustic alkali certain other chemical compounds, among which are such of the primary or monohydric alcohols as will remain intimately diffused throughout the mercerizing solution of caustic alkali after being incorporated therewith, and will not tend to separate out therefrom on standing at the low temperatures desirable for mercerization. The most available of these are ethyl alcohol and methyl alcohol, either or both of which may be mixed with the mercerizing solution of caustic alkali in suitable quantity.

Some of the monohydric alcohols which have a more complex molecular constitution may be substituted, but they have no advantage over methyl or ethyl alcohol.

The condition of ethyl alcohol in the state known as denatured alcohol, which is relatively cheaper in the market than when not so adulterated, does not materially interfere with its effectiveness for this process. The improved method may be satisfactorily carried on with a mercerizing liquid made by the addition of such denatured alcohol in the proportion of 57 parts by weight to 943 parts of an aqueous solution of sodium hydrate at 60 deg. Tw. This proportion is not rigid; but if the ratio of the quantity of alcohol to that of the caustic alkali in solution at the hydrometric density stated is much less than the ratio just indicated, the viscose silk will





not be adequately protected; if such ratio is much greater the mercerizing efficiency of the caustic alkali thus modified will tend to become impaired.

Otherwise than such required modification of the mercerizing solution the treatment of the fabric into which both cotton and viscose have been interwoven is substantially the same as that customarily employed in the mercerization of woven fabrics composed entirely of cotton, including the usual means and mode of applying tension thereto for the prevention of shrinkage. It is desirable immediately after these mixed goods have been subjected to the mercerizing process under tension to pass them through a weak acid bath before washing.—*Textiles.*

## COAL TAR FIRST AID TO THE BIBULOUS

### Weiss and Downs Evolve Method by Which Cream of Tartar and Important Fruit Acids Can Be Obtained from Benzol

Announcement has been made that, by a newly discovered method, coal tar can be made to yield tartaric acid and other important substances which will help to lower the costs of living and lessen the blow of Prohibition.

The details were explained in a joint paper read before the New York Section of the American Chemical Society at 50 East Forty-first Street and written by the inventors and patentees of the process, John M. Weiss and C. R. Downs, respectively the manager and the chief chemist of a well-known firm of chemical manufacturers of this city.

The basis of the process is a method of building up various substances from maleic acid obtained from benzol, one of the derivatives of dark and viscid coal tar. Maleic acid has been separated from the juices of certain plants and fruits, but at so high a cost that it could not be put on the market and was considered merely as a laboratory curiosity. By the Weiss-Downs process, benzol is mixed with air and the vapor is

passed over a catalyzer, a material which alters the speed of chemical reactions without being in itself affected. On account of their mysterious power to join other substances in chemical wedlock, catalyzers are known as "chemical parsons."

With maleic acid as a base it is possible to prepare other valuable acids.

Of these, the most welcome to the housekeeper and the trade is tartaric, which hitherto has been made from the cream of tartar, a solid found in the bottom of wine casks and employed principally in the making of baking powder. The United States, before the Prohibition wave engulfed the vineyards where wine grapes are raised, produced ten million pounds of cream of tartar a year and about a million pounds of tartaric acid. As the cream of tartar cannot be obtained except through the fermentation of the wine, the grape juice industry is unable to supply the household want hitherto filled from the vats of the vintner. There was a large importation from Europe before the war, but it was checked by the military situation.

By the new process citric acid can also be derived from the maleic acid base. Citric acid causes the sour taste of lemons and other citrus fruits, and is used in lemonade and orange drink compounds. It is much employed also in the arts.

Lactic acid can also be manufactured inexpensively by the new method. It was originally derived by fermenting milk, as its name implies, although there are now several other processes for preparing it synthetically. Recently farmers have been giving lactic acid as a tonic and appetizer to pigs, for although the porcine breed is supposed always to be hungry, it is found that its craving for food and powers of assimilation, and therefore its weight, could be greatly increased by such a prescription. This acid is consumed in large quantities in the dyeing of wool and is of much worth in various industries.

Succinic acid, which is useful in making many laboratory tests, can also be

derived at a low figure by the newly devised method. As it is obtained by the distillation of amber ordinarily, this substance is costly.

Maleic acid synthesized from benzol, the inventors state, can also be employed as the basis of new dyes, medicinals and perfumes. They believe, in fact, that it will open up an entirely new field of synthetic organic chemistry. Arrangements are being made to manufacture products from this new source on a large scale, as the process would render the United States independent of foreign supplies of several important raw materials. Three American patents have been issued to the authors.

Mr. Weiss, who read the paper, was graduated from the University of Pennsylvania in 1905 with the degree of bachelor of science. He is the author of many scientific monographs and has patented numerous processes connected with chemistry. Mr. Weiss is a member of the American Chemical Society, the Society of Chemical Industry of London, the American Society for Testing Materials, the Franklin Institute, the American Institute of Chemical Engineers, the Societe Chemie Industrielle of France, the Society of Sigma Xi, the American Public Health Association, and a Fellow of the American Association for the Advancement of Science.

C. R. Downs received from Yale the degree of Ph.B. in 1909 and his Ph.D. degree was conferred at the same institution in 1912. He is also accredited with a large number of scientific papers and patents. Dr. Downs is a member of the American Chemical Society, the Society of Sigma Xi and the American Institute of Chemical Engineers.

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Following successful research work in dyestuffs in the Mitsui laboratory at Omuda, Kyushu, Japan, Yoshisate Tawara, son of Dr. Yoshizumi Tawara, president of the Tokio Hygienic Laboratory, has been sent to France by Mitsui & Co. for further study and investigation.

## BUTTERWORTH-JUDSON TO BUILD NEW PLANTS

The Butterworth-Judson Corporation announces that it has under construction new plants for the production of Gamma acid, H acid and J acid, and that preparations are being made to market a great many colors of this line as soon as the intermediate plants have been completed. This corporation will then be in a position to supply such colors as direct black, diamine black, R<sub>H</sub> and diamine fast red, F as well as diamine brown M. The research department of the Butterworth-Judson Corporation has also been doing considerable work on cyanthrol and expects to be able in the near future to supply a fast blue equal to the pre-war types.

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The Columbia Chemical Company, a West Virginia firm, will erect a building at its plant in Roanoke at an estimated cost of about \$30,000.

## CLEARING FUMES FROM SULPHUR BLEACH HOUSE

Opening the sulphur house top and bottom after bleaching is perhaps the quickest way to remove the sulphur fumes that persistently hang in the folds of the goods. While a fan or blower will effect the displacement of the fumes to a certain extent, it is well to remember that a moving current of air will always follow more readily the most direct course between the air inlet and the outlet, which will be around and over the goods.

By having large doors at both sides or ends of the house, full freedom from the outside air to gain access to the folds of the goods is more readily effected. Even in this case sufficient time should elapse between the opening of the house and the entrance of the men to remove the goods.

In a large sulphur house for carpet yarn, under daily observation of the writer, the charging is done during the afternoon and lighting of the brimstone at the close of the day, the house closed and not opened until early the next morning. All doors and openings remain fully open until near noon, when the yarn is removed. No ventilating fan is employed.

The removal of sulphur fumes from a sulphur house by means of air exhaust fan, after the bleaching process has terminated, is not very successful, for the reason that the moving current of air in the house always follows the path of least resistance. While this air

current actually does remove some of the sulphur gas, it does not remove it quickly. The solution of this difficulty will be overcome by opening all the doors and windows, and thereby allowing free access of outside air to all parts of the house.

Sulphur dioxide resulting from the burning of brimstone is slightly less than one and one-half times the weight of air, and consequently is likely to be more dense in the lower parts of the sulphur house. It would, therefore, seem best to open the house fully and allow free play for external air. Just how rapidly the sulphur fumes will be displaced will depend upon how close the goods hang together.—*Textile World Journal*.

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## ENGLISH SEEK VIVID HUES

It seems to be the general opinion that we are in for an era of brighter colors, not only in feminine dress, which is a law unto itself, but in furnishing and decoration. Blue, purple, orange, jade and "flame" are said to be favorite tints in the domestic reconstruction which is now under way. Possibly it is a reaction from the drab of war and a five years' surfeit of khaki. Certainly the War Office have led the way in the design of the medal ribands. A breast which bears the insignia of Mons, Foreign Service and Victory surpasses the rainbow.—*London Daily Chronicle*.



## INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the **AMERICAN DYESTUFF REPORTER** by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, Woolworth Building, New York City.

*Question.*—T. C. Co.—Can you kindly advise us what intermediates are used in the production of Sulphur Red-Brown, and, if possible, an outline of the process of manufacture?

*Answer.*—Our investigation shows that Sulphur Red-Brown 2 RK and 6 RK are products made by the Actien-Gesellschaft fur Anilin-Fabrikation, by a secret process. We have been unable to find any data on either the intermediates used or the methods of manufacture. We could give you more information on ordinary Sulphur Browns, but presume you already have this.

## SOUTHERN MILL EXPANSION ACTIVITIES

The following new constructions are planned by J. E. Sirrine, mill engineer, of Greenville, S. C.

Santee Mills, Orangeburg, S. C.: Warehouse, 65 by 90, standard mill construction; concrete floors, gravel roof, sprinklers.

Pomona Mills, Greensboro, N. C.: Extension to picker room 60 by 110, standard, fire protection, heating.

Piedmont (S. C.) Manufacturing Company: Remodel and extend power plant; additional water wheels and generators. Equipment purchased.

Chinnabee Valley Mills, Talladega, Ala.: Weave shed 132 by 340, stand-

ard; heating, sprinklers, humidifiers; extension weave shed Highland plant, and dye house. Electric drive.

Judson Mills, Greenville, S. C.: Complete sewer and water supply system for about 200 houses.

## NEW GREEN DYE FROM GRASS PRODUCED BY CHINESE

Acting Commercial Attache Lynn W. Meekins, at Peking, China, reports that it was announced recently by the *Min Fu Pao*, a Peking newspaper, that a chemist of Shangchenghsien named Yao has invented a green dye, made from a variety of grass, by the same method as that used in the manufacture of indigo. This may be used to dye silk or cotton, and is said to make the fabric bright and durable. Upon the completion of his experiments Mr. Yao will ask the Government to grant him a monopoly.

The high price of foreign indigo has led to a revival of the native industry in the eastern and southern parts of Honan. In Lingluhsien the 1918 crop

of 2,000,000 catties (2,666,667 pounds) was sold at a profit of \$20,000. Planting has been undertaken on a larger scale, and the present year's yield is expected to bring larger returns. Another satisfactory crop is reported in Tungsuh-sien.

A group of merchants have obtained the necessary capital and secured official permission for the establishment of a dye factory at Kweitien. Recently the civil governor of the province was notified by the Minister of Agriculture and Commerce that native indigo will be exempt from taxation for three years. This should lead to an increase in the number of plantations, and if the quality of the product continues to improve the import trade will probably be permanently affected.

### **DYE IMPORTS WOULD BE LICENSED BY CHEMICAL ENGINEERS**

At the meeting of the American Institute of Chemical Engineers at Savannah, Ga., the following resolution was unanimously adopted:

"The American Institute of Chemical Engineers in convention assembled at Savannah, Ga., recognizing the importance of protecting the coal-tar industry and the dye industry in particular, not only to the industrial interests of the country in general, but also to its public health and the protection of the country in time of war, wishes to express itself in the following resolution:

"That the American Institute of Chemical Engineers urges upon the United States Senate the importance of enacting the Longworth bill embodying the licensing plan protecting both the manufacturer and user of dyes."

### **DYEING FABRICS CONTAINING ARTIFICIAL SILK**

So many varieties of artificial silk are on the market that no attempt will be made to enumerate and classify them here. All these in combination with cotton in a fabric, when dyed with substantive colors in a boiling hot dyebath, will dye the silk much darker than the cotton. The viscose silk will dye somewhat lighter than the other silks, and for this reason it is an advantage to the dyer to be able to distinguish the different artificial silks—at least to be able to distinguish those that have dyeing properties differing from the main class of artificial silks.

#### **COTTON AND ARTIFICIAL SILK**

When a combination fabric of cotton and artificial silk is dyed, it is necessary that the silk be of a lighter shade than the cotton in order to obtain the best effect. If the dyebath is kept at a temperature of from 50 to 60 deg. Fahr., the artificial silk will be of a shade lighter than the cotton. It also happens in some cases that the cotton will be of a kind that does not absorb the dyestuff readily. In this event the cotton must be treated before dyeing so as to increase its affinity for the dyestuff.

It might happen that the dyer will be called upon to dye a fabric composed of cotton and artificial silk in which the artificial silk will not take the dye as readily as the cotton. In this event the artificial silk would remain lighter than it should be. In such an event correction may be made by raising the temperature of the dye-

bath to as high as 120 deg. Fahr. At this higher temperature the dye goes on the fibers faster, and becomes better fixed. The result is that the goods are faster to crocking.

Basic colors do not give good results on combinations of cotton and artificial silk. When this class of dyestuffs is used the artificial silk is always dyed darker than the cotton. An exception to this is viscose silk, but even in this case the basic colors should be used only when the desired brightness of shade cannot be obtained with the substantive colors. When basic colors are used, the material to be dyed is mordanted in the usual manner with tannin and antimony salt and dyed in a cold bath.

There are many colors suitable for dyeing combinations of cotton and artificial silk, but a list of them at this time would be useless, for many of them cannot be obtained, due to the present confusion in the dyestuff market. Gray may be used to good advantage for deepening the shade of blues and browns instead of black. The dyeing is carried out in a short bath, with the addition of Glauber salt and soda. Green olive oil soap may be used in place of soda with good results.

#### HALF-WOOL AND ARTIFICIAL SILK

The dyeing of half-wool and artificial silk fabrics may be carried out by the one-bath or the two-bath method. When dyed by the former method

better fastness is secured, and at the same time there is a considerable saving of time. Unfortunately, the substantive colors which dye wool, cotton and artificial silk the same depth of shade in one bath are limited in number, and these to a few staple shades. Therefore the fashionable shades cannot be dyed in the one bath with these dyestuffs. Should there be a difference in the shade of the wool and the cotton, use may be made of the neutral dyeing wool colors which are generally used when half-wool fabrics are being dyed. This method can be used only for those fabrics in which viscose or nitrocellulose silk has been woven. The other classes of artificial silks would dye too dark by this method.

The goods are entered cold and dyed for about 30 minutes, after which the temperature is raised to the boil, and the dyeing continued until the wool has taken on the desired shade. Should it be necessary to correct the shade of the cotton by adding more substantive colors, it is the better plan to cool down the bath and to dye for a while at the lower temperature. If it is necessary, the bath may again be raised to the boil.

Smoother dyeings may be obtained, but at the cost of more time and labor, by the two-bath method. This is carried out in the same manner as for half-wool fabrics that have no addition of artificial silk.—*Posselt's Textile Journal*.

(Concluded next week.)



## BRITAIN TO ABANDON DYE LICENSING PLAN?

As this issue of the REPORTER goes to press, word is received in this office of a cable from England stating that the licensing system for the regulation of dye imports into that country, conducted by the British Board of Trade and the Dyes Commissioner, has been abandoned. The message, which has not yet been verified, further states that all imports into that country may now be freely made, unhampered by any restrictions.

## NOTES OF THE TRADE

Announcement has been made to the trade that the offices and warehouse of the Albany Chemical Company, of New York City, have been moved to that firm's new building at 108 John Street. The transfer took place on the first of the year.

To manufacture woolen cloth, etc., the Demetre Corporation has been incorporated under the laws of New York with a capital of \$300,000. Offices will be in Manhattan, and the incorporators are A. Demetre, J. Demetre and J. Vinner.

Under the laws of West Virginia the Cowen Coal & Coke Company has been incorporated with a capital of \$500,000. Headquarters will be in Wheeling.

Notice of organization has been filed by the Regal Color & Chemical Company to operate at 357 Westminister Street, Providence, R. I. This company, of which James C. Carmack is the head, will manufacture chemicals, colors, etc.

A New York real estate firm announces the sale to Herman A. Metz of the five-story fireproof American basement dwelling at 38 West Seventy-fourth Street, that city. Mr. Metz, before making the purchase, was the tenant of the dwelling, which is part of the Clark estate.

Trade names for vat colors in England have been chosen as follows: Vat dyes of British Dyes, Ltd., are termed Chloranthene colors; those of Levinstein, Ltd., are called Duranthrene colors; those of L. B. Holliday & Co. are known as Hydranthrene colors, and those of Scottish Dyes, Ltd., are marketed under the name of Caledon colors.

The Aero Silk Mills have been incorporated under the laws of New York with a capital of \$40,000 to manufacture silks. Headquarters will be located in Manhattan, and the incorporators consist of S. J. Lefschutz, M. Rosenberg and H. J. Garfinkel.

With a capital of \$50,000 the Roscoe Broad Silk Mills, Inc., have been chartered under the laws of New York to manufacture broad silks, cotton goods and textiles. Offices of the company will be in Manhattan, and the incorporators are M. Schlesinger, E. Schlesinger and I. Schlesinger.

To engage in the manufacture of silk, wool and other textile fabrics, the Falcon Silk Company, Inc., has been incorporated under the laws of New Jersey. The capital of the new concern, headquarters of which will be located in Paterson, is \$75,000.

To manufacture knit goods the Silk Craft Knitting Company, Inc., has been incorporated under the laws of New York. The capital of the company is given as \$55,000. Headquarters will be in Manhattan, and the incorporators consist of E. I. Hanson, M. Rosen and W. H. Roe.



# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 3

Jan. 19, 1920



THIS ISSUE IS THE  
JANUARY EXPORT NUMBER

## Protection Impending ?

Good News Is the Fact of  
Senatorial Agreement on  
Satisfactory Method of  
Safeguarding Dye Indus-  
try Apparently Having  
Been Reached at Last,  
with Outlook for Action  
Promising.





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## PROTECTION IMPENDING?

Chances for Favorable Recommendation on Substitute for Licensing Clause Regarded as Good—Measure Apparently Removes Last Objection of Consumers and Importers—Senators Wish to Safeguard Industry

THE hearings before the sub-committee of the Senate Finance Committee on the Longworth Bill, "H. R. 8078," came to a close on Monday afternoon, January 12. While it is, of course, impossible to say definitely what the report of the sub-committee will be, it is our opinion, based upon a careful study of the comments made by the various Senators while the hearings were in progress, that it will embody a practically unanimous recommendation that the substitute provisions of that section of the measure which had to do with the so-called "licensing feature" be adopted. The text of this substitute as submitted to the sub-committee is given later in this article.

At any rate, it is safe to say that it was the temper of the sub-committee that the American dyestuff industry should be completely protected; the only question at issue seemed to be the best method of accomplishing such protection. The committee seemed to ac-

cept, without reservation, the statement made by Mr. Garvan at a previous hearing, that the question before the United States was one as to whether Germany should be allowed to license what we might receive or we should license what we would take from Germany.

The proposed substitute completely eliminates the objectionable licensing feature which had found disfavor with so many consumers, and substitutes in its place a clear-cut method of importation, involving a minimum of "red tape," by which all needful dyestuffs can be secured without unnecessary delay.

A summary of the advantages of the proposed plan might be stated somewhat as follows:

1. It cuts out the whole requirement of licensing. No one, whether consumer or importer, need ask anyone's leave to import whatever is lawfully importable. No one need go to Washington or employ legal "red tape." A consumer can get needed goods as former-

ly, by merely giving an order to an importer or he can import for himself by merely stating that the goods are for his own consumption.

2. It does away with all uncertainty in the consumer's mind. He can tell by a glance at the importable lists just which dyestuffs he may and which he may not import.

3. It abolishes delay. It permits import with no more formalities than at present, except where a product has already been imported in such quantities as to provide for the whole country's needs for half a year, in which case it will presumably be purchasable from those who have already imported it.

4. It enables the consumer to have corrected, before any damage is done, any errors which the Tariff Commission may make. If a consumer finds that products which he believes he will want to import are not on the importable lists, he can show the Tariff Commission his reasons for desiring such importation without waiting until he actually needs the goods. Questions of importability can be settled at the outset.

5. It takes care of the professional importer. He can import without limit in bond and, to get his goods in, need only file a sworn statement, which is no more vexatious than ordinary Customs requirements. He is only called upon to show a bona-fide order for the goods and until he has such an order he would not want to take his goods out of bond anyway.

6. It provides against one of the most dangerous methods of evading tariff or licensing protective laws, often employed by the Germans—the invention of new names for old products. A new name would in itself keep the goods off the importable lists until such time as the Tariff Commission were shown that it represented an actually new product.

7. It provides, at a minimum inconvenience to consumers, against the crucial danger of the importation of cheap substitutes. Any product which has *any* substantial use except as a sub-

stitute *must* be placed by the Commission on the importable lists. The Commission's action in regard to each product is public, general and immediate. There can be no complaint of discrimination as between consumers and errors can be corrected at the outset. The consumer's own word is taken for the need of the product for his purposes.

The substitute measure in effect is an embargo against the importation of German dyestuffs which compete with American products already developed. And, what is most important, it restricts the importation of such colors as are not yet produced here, but whose need is generally recognized, to a six months supply. It was clearly demonstrated to the committee that if unlimited importations of these dyestuffs were permitted it would be possible for Germany to store up in this country sufficient quantities of these colors to permanently destroy any possible market for American colors of a similar type and so make it ridiculous for the American dyestuff manufacturer to continue the costly and arduous labor necessary to build up a self-contained American industry.

A most interesting phase of the attitude of the individual members of the sub-committee while the hearings were in progress was the complete submergence by all members of all partisan or private interests in the broader question of national expediency. The members gave very careful attention to the testimony of officers of the army and navy tending to show that a well developed dyestuff industry afforded the only possible preparedness for modern warfare. They were also vitally interested in the medicinal aspects of the case where it was conclusively shown that the research laboratories of the dyestuff manufacturer were the logical and, in fact, the only probable birthplaces of new discoveries for the pharmaceutical and medical sciences.

It is expected that the report of the sub-committee to the whole committee will be made within the next few days and there is no reason to believe that

any delay will occur in reporting it on the floor of the Senate. If the Senate, as a whole, then takes favorable action on the report, the bill as amended will be referred to conference with the House, and it is earnestly hoped that a speedy agreement on the differentiations between the House and Senate measures will be reached. In the meantime and pending the final passage of this legislation it has been agreed among leaders of the Senate that the time will be extended under which the War Trade Board will continue to exercise supervision of importation, as at present.

At the time of going to press, our best information is to the effect that the sub-committee has not as yet agreed upon certain technical features of the Bill but is awaiting the report of experts who have this matter in hand. It has also, we understand, not been definitely settled just what recommendation the committee will make in regard to the tariff provisions as contained in the Longworth measure. We understand, however, that the duties as provided therein, of 40 per cent ad valorem and 6 cents per pound specific in the case of intermediates, and 45 per cent ad valorem and 7 cents per pound specific on finished dyestuffs, will be materially increased. At the present time it is comparatively immaterial what duties are levied, as only non-competing products will be admitted under the embargo. But, notwithstanding, it is considered wise to have an ample tariff wall as a reserve in case the embargo provisions should not work satisfactorily in every case, and particularly that an adequately protective tariff should stand on the statute books against the time when the embargo provisions may expire.

The committee was especially interested in the testimony of Irene du Pont, president of E. I. du Pont de Nemours & Co., Inc. Mr. du Pont, although not claiming to qualify as an expert in dyestuff matters, gave the committee much food for thought in the broader aspects of the case which affected America both industrially and politically. Some in-

teresting portions of his testimony which have not as yet been printed are given herewith:

Mr. du Pont differentiated the dyestuff industry from all other industries in that the question of yield was so indeterminate. He pointed out that in the steel industry a given amount of pig-iron could be confidently relied upon to produce a given amount of finished steel products, but that in the dyestuff industry it was utterly impossible to tell what might be the final result. He pointed out, for instance, that with a given amount of benzol which theoretically should produce a certain fixed quantity of a finished dyestuff there were constant losses, due to various inexplicable causes, which might result in the finished product being nowhere near the quantity which should have been theoretically obtained. He quoted Dr. Stieglitz, who said: "After a long series of reactions you get out enough finished product to *see* but not enough to *use*." This question of yield,



Mr. du Pont said, could only be solved by painstaking experimentation. He was confident that the American manufacturers could, in the end, achieve something like 100 per cent yields, but it was absolutely unreasonable to expect them to secure anything like this percentage in the present stage of development of American dyestuff manufacture. The obvious conclusion to be drawn from this testimony was, of course, that whereas the industry might not need protection when the question of yields had been perfected, it very obviously demanded protection until such time had arrived.

Mr. du Pont was asked whether, in his opinion, American manufacturers would eventually be able to produce dyestuffs as cheaply as did the Germans before the war. To this he replied that he did not believe either the Americans or the Germans could ever again produce for such prices, but that he believed the Americans could eventually equal the German costs unless there should be a further discrepancy in the

price of labor between the two countries.

Another factor leading to the temporarily excessive cost of dyestuff manufacture in the United States, according to Mr. du Pont, was the question of repairs and replacements. Mr. du Pont pointed out that because of the newness of various operations, equipment which was perhaps not the best adapted for its purposes was constantly wearing out and had to be replaced which would not be the case after the processes had become stabilized and the best equipment possible had been devised.

The third factor was the necessity of "scrapping" apparatus and equipment because of the constant discovery of more efficient means of production. He pointed out that if a plant had been built for a specific method of manufacture and it was discovered later that there was a much better way of accomplishing the same result by a different series of reactions, the manufacturer would have to design and arrange a new plant for carrying on the new series of reactions, which, consequently, left a quantity of special apparatus which was entirely useless.

The fourth item going to make up the temporarily high costs, according to Mr. du Pont, was the profitable use of by-products. At the present time American dyestuff manufacturers have had to bend their energies to producing a certain needful color, regardless of the waste of by-products entailed in the process. As processes become standardized, however, it is possible to find a profitable market for many of the by-products produced en route which will greatly decrease the cost of the finished dyestuff. This question of the utilization of by-products, Mr. du Pont said, had been one of the most potent factors in keeping down German cost of manufacture. Mr. du Pont said that, as a matter of fact, his own company had, at the present time, stored up millions of pounds of various by-products for which they had as yet been unable to discover a commercial use but which

he had no doubt could be profitably turned to account when his research chemists were free to turn their attention from the more pressing matters in hand and devote themselves to experimentation with these now waste products.

The point in laying emphasis on these temporarily high costs, of course, was to make it clear to the committee that a tariff, no matter how high, would not in itself protect the American industry during its period of development against the seasoned methods of production long since developed by the Germans.

In regard to the length of time necessary for the industry to become thoroughly efficient, Mr. du Pont said, when asked by Senator Curtis how much time he advocated, "I would say ten years. Five years may be enough but the more time you give the more capital will flow into it. The more sure the men undertaking it are that they are safe from German aggression, the more capital will flow into it."

Another point in Mr. du Pont's testimony which may be of comfort to some of the smaller dyestuff manufacturers was as follows:

"You brought up the question yesterday or day before whether the big fellow will try to undersell the little fellow. That is the last thing a man wants to do. The only place I ever heard of that being done was in Ida Tarbell's book on the Standard Oil. I never heard of it any other place. That is the last thing the big fellow wants to do; it costs him terribly. He might *incidentally* put a little fellow out of business if his yields go up and his costs down where he can make a very handsome return at a selling price which will ruin the little fellow. That is the source of these rumors. The little fellow fails because he happens to be ground between the wheels of progress."

As an example of the sentiment of the sub-committee in regard to protecting the industry: When Mr. du Pont said at one stage of his testimony that if the industry were not properly protected by Congress, the Du Pont Company would

unquestionably abandon it, Senator Nugent said: "I do not think you need entertain any apprehension as to whether the Congress will protect the dye industry in this country." To which Mr. du Pont replied: "I know from hearing you people speak, the temper is to protect it, but will it be 'protected' in a way which will be a quick way to kill it? Will they say because a tariff protected some other industry it is a good thing to protect this?" At which Senator Curtis said: "I think the general opinion is you could not put on a duty that would be protective which the people would stand for."

When asked about the anti-dumping law, Mr. du Pont said that as he understood it, this question was based upon a determination of German costs. He gave it as his opinion that it was utterly impossible to determine the cost of any particular product in the dyestuff field. As an instance he cited the following: "Let me take simple by-products that  
(Continued on page 16.)

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Pointed solely toward the welfare and growth of  
the American Dyestuff Industry. Unbiased contri-  
butions appreciated.

A. P. HOWES, President  
LAURANCE T. CLARK, Editor

**THE LOGICAL SOLUTION**

Not since the House of Representatives passed the Longworth bill, with the attending licensing clause substantially in the form in which it was presented, has the REPORTER taken so much pleasure in printing anything as we derive from the leading article in this issue.

Particularly is this true because the reports in the daily press dealing with the reception of the bill by the Senate Finance Committee sub-committee have of late been anything but encouraging. As the second series of hearings closed early last week all were practically unanimous in predicting the speedy end of the licensing clause.

And, indeed, they are likely not far wrong. The House giveth and the Senate taketh away. That which seemed good to our Representatives but not good to a large number of consumers and importers of dyestuffs has apparently been tried and found wanting by our Senators, and is in all probability slated for a summary fall.

For a better way has been found. At the present writing the chances that the eleventh-hour substitute measure, given in full elsewhere in these pages, will receive a favorable recommendation seem good. There is no certainty that it will become a law; nevertheless, should it be enacted the problems of both the industry and its consumers, as well as the importers, may be regarded as being solved.

The hope that this may be the case is based on the fact that the measure

appears to be the one solution on which all elements involved—including the Senate—can agree with perfect unanimity. It apparently removes the last objection which could be brought against a protective measure which would really protect. Throughout the hearings the statement was reiterated by the Senators that all were willing and anxious that the American dye industry should receive adequate protection. The only disagreement has been over the method to be taken for the accomplishment of this end. While at times this has been exceedingly trying, it is felt that, win, lose or draw, the Perfect Solution has been reached. Its chances are good, because it gives the Senate the opportunity it has awaited to safeguard American dye manufacturers from foreign competition and to take a step which all were convinced was necessary to any program of preparedness.

The effects upon the industry, assuming its enactment, should be little short of electrical. Irene du Pont, testifying, stated that in the case of his own firm an appropriation of no less than \$5,000,000 intended for the further advancement of its coloring facilities was being held up pending the assurance that the industry would be placed upon a stable footing over a period of years sufficiently long to allow it to develop properly. This is business talk by a big business man, and it is probable that the aforementioned situation is typical of not a few of our dye manufacturers.

With the additional capital which would begin to flow into the industry on the passage of the present bill, together with the general stimulus provided to research—not the least factor of which would be the great increase in the number of young men who would be encouraged thereby to follow this profession as a life-work—it is not too much to say that before very long our American manufacturers would surprise their potential

*(Continued on page 15.)*



## THE LOGICAL SITUATION

*(Concluded from page 10.)*

benefactors, as well as the public at large, by the brilliancy of their achievements.

The REPORTER congratulates the industry on its suddenly brightened prospects, and likewise extends to our Solons its heartiest felicitations upon the course which they now seem minded to follow. If they "carry on" as they have begun, they, together with many able advisers, will have achieved the logical solution of a vexatious riddle.

## TO OUR FOREIGN CONSUMERS

To its friends in other countries who are interested in the advancement of the science of the by-products of coal tar the REPORTER takes much pleasure in bringing information of the improved prospects for future world service which have, since the last issue, become the portion of the American dye industry.

A month ago the situation, while hopeful, could not be said to have been encouraging; it seemed as though the United States Senate Finance Committee might fail to realize the full need for the speedy and decisive entrenchment of the industry against the impending onslaught of a killing aggression before it had grown large enough to defend itself.

It was not that these lawmakers did not agree that Germany ought not again to be permitted to assume the position of arrogance which formerly was her most noticeable trait. But other things, such as party loyalty and similar wheels within wheels which obtain in politics wherever politics is to be found, might, it was feared, outweigh the more important consideration in the minds of those upon whom rested the fate of the proposed protective measure.

Now we learn that the intent of the Senate is to provide adequate protection for the infant industry, and at last a means for doing this without injustice to anyone has been found.

Whether this intent is carried out or not it is yet too early to predict, but many are confident that an understanding will be reached which will work out to the advantage of the dye industry here.

Should this prove to be the case, the advantage will not be confined to one country but will be transmitted undiminished, directly or indirectly, to every consumer of coal-tar products regardless of locality.

The world has already had a demonstration of the organizing and producing abilities of America. All are aware that this country harbors vast resources as yet untouched and undeveloped. It is common knowledge that in the matter of raw materials for the establishment of a coal-tar chemical industry the United States is preeminent.

Hitherto these resources have remained uncultivated for reasons which are well known. With the coming of the war and the sudden insatiable demand of Europe for explosives, organization began, and in the comparatively short time which has elapsed since then America has already taken her place among those who supply the world's synthetic dyes, medicinals and photographic chemicals.

Now, should the hoped-for action be taken by the Senate she will begin work in earnest, the long-cherished plans of her manufacturers of these products can be executed, the industry will become fully stabilized, a general standardization will take place, and efficiency of production will attain its maximum.

Consumers of coal-tar chemicals have every reason to hope for the speedy enactment of the proposed law.

The police of Munich, Bavaria, recently unearthed a plot to dispose of huge quantities of imitation salvarsan. The spurious medicinal was being vended through secret channels, but the local Sherlock Holmeses managed to seize much of the supply nevertheless.

## PROTECTION IMPENDING?

*(Continued from page 9.)*

you know about; that is, the by-products of charcoal. Originally charcoal was made like coke, in a beehive oven; you heated it and you drove off the volatile parts of the wood. That was a very simple method. Somebody discovered that in the gases there were valuable by-products. The wood for the by-product charcoal is now heated in retorts and the gases passed through condensers. In the distillate you get acetic acid, wood alcohol and a certain amount of acetone and also an amount of tar and other products. You neutralize the acetic acid with quick lime and get calcium acetate. Redistill the alcohol, mix with other materials and you separate methyl alcohol and acetone and wood alcohols.

"Now, the value of these by-products during the war, if sold on the market, would pay for the entire cost of the wood and the entire operation of the plant, so that you will have your charcoal at no cost at all. Now, by that way of accounting, we had costs as low as three cents less than nothing for a bushel of charcoal during the war. Charcoal was the thing we were making for the manufacture of black powder, but the gathering of the by-products made it appear to cost less than nothing. Now, how can you approximate the real cost of any one of them? How can you say what fraction to take as the acetone costs; and how much to take as the wood oil costs? There is no way of saying. It is purely arbitrary to say 20 per cent on this and 20 per cent on that; it does not mean anything."

Mr. Choate: "So it would be fair

to say in many cases that German works might state, and truly state, that the particular products produced by them cost nothing or less than nothing?"

Mr. du Pont: "I think so. We reported the cost of charcoal less than nothing during the war."

Mr. Choate: "And they might figure the costs so low that apparently they might appear infinitesimal?"

Mr. du Pont: "I think so."

The obvious logic to be drawn from the above testimony is that if German manufacturers were able to state, and truly state, that according to their costs system certain products cost next to nothing, any anti-dumping legislation based upon such costs would be worse than useless toward the end of protecting American manufacture.

### TEXT OF SUBSTITUTE MEASURE

The proposed substitute measure for the licensing features of the original Longworth Bill as submitted to the Senate sub-committee is as follows:

503 (a) During ten years after the taking effect of this act, no product covered by the Dutiable List in Section 500 hereof which is manufactured in the United States in quantity sufficient to meet the demand for domestic consumption, and in quality substantially equal to the standard for such product, prevailing in the industry on August, 1914, and no product having substantial usefulness only as a substitute for a product so manufactured in the United States, shall be admitted to import. All questions of fact as which of such products are entitled to admission to import shall be determined by the United States Tariff Commission, as hereinafter provided.

The said Tariff Commission shall forthwith proceed to prepare after investigation a list to be known as the Importable List of such products as may be found by it to fulfill the above requirements for admission to import. The said list shall be revised from time to time, and except as hereinafter provided no product not named thereon shall be admitted to import.

Before any of the products named on said list shall be admitted to entry, the importer shall file with the Tariff Commission a notice containing sworn statements by the importer that the proposed import is either for current use or consumption by him and will not, either alone or in conjunction with previous notices, or any other supply from whatever source derived, suffice to provide him with a quantity greater than his actual requirements for such current use or consumption for the ensuing six months, or that the proposed import is desired in order to fill an actual bona-fide order from a named domestic consumer for such consumer's like current use or consumption, in which event there shall be annexed to the notice proof by affidavit of such consumer that the proposed import will not either alone or in conjunction with previous orders or any other supply from whatever source derived, suffice to provide him with a quantity in excess of his actual requirements for such current use or consumption for the ensuing six months. Said sworn statement of the importer shall also state the name,

chemical identification, strength and quantity of the proposed import, together with the name of the port of entry at which it is to be brought in. A copy of such notice shall be transmitted by the Commission to the Collector of said port, and no import shall be admitted to entry unless found to correspond with such notices. The collectors of all ports shall promptly notify the Commission of the admission of all such imports. The phrase "use or consumption" as used herein shall, in the case of products customarily used for medicinal or photographic purposes only, include sale for such purposes only. The Commission may suspend pending investigation by it, the operation of any notice which may appear to it to be calculated to provide any consumer with a supply of any product in excess of his actual requirements for current use or consumption during six months after the date of such notice. If upon such investigation the Commission shall determine that any such notice covers any such excess, it shall forthwith cancel the said notice and notify the person by whom the same was filed.

When, at any time the Commission shall find that notices received by it, of which copies have been transmitted to the collectors, cover a quantity of any product sufficient in the aggregate, together with domestic production, to constitute an excess over current consumption equal to a six months' supply of the ordinary requirements of such product for domestic consumption, no



copies of notices covering such product shall be transmitted to the collectors until the Commission shall determine that the unused quantity of such product in the United States is less than such six months' supply. The Commission shall promptly notify of such action all persons who have filed notices the operation of which is thus suspended.

The Commission shall also prepare a second list to be known as the Conditionally Importable List comprising all products which, while mainly useful as substitutes for domestic products, have special uses for which a domestic equivalent is not available. The said Conditionally Importable List shall state opposite the name of each product the said special uses. Any product named in such list may be imported, subject to the conditions hereinbefore provided, when and only when the notice covering the proposed import contains a sworn statement by an actual consumer, that the proposed import will be used by him solely for one or more of the special uses stated in said list for said product.

Notices received by the Commission shall not be open to public inspection.

If at any time complaint shall be made to the Tariff Commission that the price of any domestic product covered by the dutiable list of Section 500 of this act is unreasonably high, the Commission shall investigate and if upon such investigation the Commission shall, after a hearing, determine that such price is sufficient to yield an unreason-

able profit to every domestic manufacturer, it shall place such product on the Importable List during the continuance of such unreasonable prices. Two weeks' notice of such determination shall be given all domestic manufacturers of such product known to the Commission before such product shall be placed on the Importable List.

Notwithstanding anything herein contained, any product covered by this act may be imported and stored in a United States bonded warehouse. No product so imported shall be released from such bonded warehouse or admitted to entry except as hereinbefore provided.

503 (b) The United States Tariff Commission in executing the duties imposed upon it by this Act, may regulate its own practice and procedure, but shall so regulate the same as to prevent all avoidable delay.

503 (c) Any product covered by Section 500 of this Act which shall be imported into the United States or any of its possessions otherwise than as provided herein, shall be forfeited and shall be destroyed whenever and wherever found.

503 (d) Any person subject to the jurisdiction of the United States who shall, either as principal or as accessory, import or attempt to import or aid in importing any product covered by Section 500 of this Act otherwise than as herein provided, or who in making any sworn statement required by this Act shall wilfully misstate or misrepresent any facts shall be fined not exceeding

\$5,000 or the value of such product at the time of importation, whichever shall be greater, or shall be imprisoned for not more than one year, or both.

504. Except as otherwise herein specially provided, this Act shall take effect on the day following its passage.

## DYEING FABRICS CONTAINING ARTIFICIAL SILK

*(Concluded from last week's issue.)*

At the beginning the wool is dyed in an acid bath containing formic acid. Formic acid is to be preferred to sulphuric for the reason that the sulphuric acid is very liable to damage the artificial silk. After the wool has been dyed the goods are rinsed, and the cotton and the artificial silk are dyed with the substantive colors in the same manner as has been described above.

If one is dyeing to sample, it should be remembered that the wool will take up some of the substantive color. Therefore the shade of the wool must be kept somewhat lighter in the acid bath than the sample requires.

### WOOL AND ARTIFICIAL SILK

To dye fabrics of wool and artificial silk one of the four following methods may be used: (1) Dye the wool in an acid bath, and color the artificial silk with substantive colors. (2) Dye the wool with acid colors, and cover the silk with basic colors. (3) Dye the material with a substantive color that has

a strong affinity for wool: (4) Dye with union colors.

The previous dyeing of the wool is carried out with acid colors, with the addition of 10 per cent of Glauber salt, and from 2 to 5 per cent of formic acid. After the goods have been well rinsed, the artificial silk is dyed with substantive colors that will die at the lowest temperature, and have little affinity for the wool, especially in the cold bath. The material may also be mordanted with tannin and tartar emetic, and dyed cold with basic colors.

It should again be emphasized at this time that it is necessary that the wool be kept a little lighter than the desired shade when dyeing with substantive colors. Care must also be used when dyeing with basic colors, especially when the artificial silk has been mordanted with tannin and antimony salt. In this case the mordant acts upon the wool in such a manner as to cause it to take up the dyestuff slowly.

To dye a fabric of wool and artificial silk in one bath, use must be made of the union colors. The material is dyed at the boil for about one hour, with the addition of 10 per cent of Glauber salt. It should be remembered that with prolonged boiling the wool will dye darker than the artificial silk. Excellent results can be obtained by the addition of from 1 to 2 per cent of acetic acid, and boiling for a less time. It is evident, of course, that acid cannot be used when dyeing with a color that is sensitive to acids.

It is essential that the dyer who is attempting to dye a combination of wool and artificial silk be well acquainted with the colors he is operating with, their properties in regard to their affinity for wool and cotton, their sensitiveness to acids, etc. The inexperienced man can obtain this information only through experience, although he may obtain much information of value to him from the dyestuff supply houses.—*Posselt's Textile Journal*.

### AT IT AGAIN!

That Germany is making serious efforts to regain her foreign markets, is shown by the tremendous advertising campaign being organized by the "Reichsverband Deutscher Industrieller" (National Association of Industry), in conjunction with the "Verein Deutscher Ingenieure" (Society of German Engineers).

The National Foreign Trade Council has received the information that under

the management of the "ALA" (Allgemeine Auzeigen Gesellschaft m.b.H.), a notorious propaganda center of German war industry, foreign countries are to be flooded with German periodicals. An engineering export paper, issued in four languages: German, English, French and Spanish, will shortly make its first appearance. Engineering concerns are subscribing heavily to this enterprise in the shape of advertising contracts and prepaid subscriptions for a large foreign circulation during a period of five years. Individual firms, like Krupp's, alone have contracted to pay the fees for over 3,000 free copies to be sent out regularly during that period. Further, a combine or trust of the German industrial press is in the course of formation with a view to making concerted efforts in the same direction.

The "ALA" intends to establish offices in all foreign capitals to act as advertising agencies and as distributing centers and news gatherers for the "Überseediens" (Overseas Service), a large German agency for commercial news affiliated with the "ALA." In the former capacity it is hoped to wield much influence in the foreign press and trade periodicals.

Readers of the REPORTER are no doubt already well aware of the fact that the Hun is again about to make a strong bid, through the medium of the printed word, for his former trade supremacy in this and other countries. For more than a month back the increasing presence of familiar, vaguely familiar, and wholly new periodicals, both scientific and lay, has been noticeable to all who frequent book stores and magazine stands.

To attempt to combat such methods is neither practicable nor desirable. Indeed, it is well for us to know—if not actually what the Hun thinks—at least, what he would have us think he thinks. German literature of the variety referred to above constitutes no real menace, particularly if the motives actuating its sudden torrential advent be kept constantly in mind.



## SUTER REPRESENTATIVE SAILS FOR JAPAN

Mr. Luigi Persenico will sail soon to take charge of the branch office at Yokohama, Japan, of Eugene Suter & Co., specialists in dyes, chemicals, fertilizers and oils at 120 Broadway, New York.

A linguist, and well versed in international trade matters, Mr. Persenico has been acting for many years as foreign representative of English, French and Swiss manufacturers, and during the last three years has had complete charge of all shipping from the United States to Switzerland.

Another branch office was recently established by this firm at 60 Gartenstrasse, Basle, Switzerland.

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## ATLANTIC DYESTUFF CO.'S COLOR NOMENCLATURE

By a clever modification of the first word of its name, the Atlantic Dyestuff Company has evolved a series of names which it has adopted to denote the various colors it now produces; for instance, it uses "Atlantic" to denote sulphur colors; "Atlantamine" to denote direct colors; "Atlantene" to denote developed colors; "Atlantole" for acid colors, and "Atlantrene" to denote chrome colors.

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## INDIGO CROP IN KARACHI, INDIA, CONSULAR DISTRICT

(*Consul E. Verne Richardson, Karachi, India, Nov. 1, 1919.*)

According to official returns just made public, the area sown with indigo in the Province of Sind for the 1919-20 crop is 7,500 acres, of which 4,700 are in the Khairpur State. This is 11 per cent greater than the sown area a year ago. The coming yield is estimated at 1,600 hundredweight, or 179,200 pounds, an increase of 1,000 hundredweight, or 67,200 pounds, over the last year's forecast.

In the Punjab the sown area at the end of September last was estimated at 19,300 acres, as compared with 30,900 acres estimated a year ago. As shown by actual returns, however, of last year's

planting, the current estimate represents an acreage increase of 17 per cent. The season has been favorable and the crop is in good condition. The yield is estimated at 3,100 hundredweight, or 347,200 pounds.

The indigo areas of these two Provinces combined represent but 10.7 per cent of the total area of British India.

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## SHERWIN-WILLIAMS MOVE TO LARGER QUARTERS

In order to meet the constantly increasing demand for their dyes, chemicals and colors, and to improve their facilities for taking care of their general sales and executive requirements, the Sherwin-Williams Company have found it necessary to move to larger quarters for these several departments at 115 Broadway, New York. The uptown store at 116 West Thirty-second Street will retain its original character as a modern retail paint store.

## SUMMARIZES LYONS SILK PRODUCTION

*La Soierie de Lyon*, a technical magazine of the silk industries, published in Lyons, France, has just issued a special number of 110 pages which sums up completely the production of silk in Lyons. It is valuable for the buyer, as it contains articles on the different sections of the silk industry and a full list of Lyons manufacturers. Published in three languages, the issue also affords an idea of the diversity of the products of the Lyons industry, indicating in particular that this French center can furnish everything from low-priced silks to fabrics of the most luxurious character.

## NOTES OF THE TRADE

Plans have been completed by the Dye Products Company, of Newark, N. J., for the erection of a brick boiler-house addition to its plant.

Announcement has been made by the British Government that the exportation from that country to all destinations of benzol and its compounds and preparations, of dimethylaniline, metacresol, methylaniline and paracresol, has been prohibited.

F. W. Barker, Jr., formerly superintendent of the plant of the National Aniline & Chemical Company at Marcus Hook, is now located in the New York office of the company.

Owing to the prevailing high prices the natural indigo industry of China, particularly in the southern and eastern parts of Hohan, has shown signs of renewed activity on a large scale. A law has been passed exempting the native product from taxation for three years, and this is expected to result in

an increase in the number of plantations, with a corresponding impetus to the export trade.

Among the new colors recently announced by the National Aniline & Chemical Company is Phosgine GN, a basic yellow possessing excellent leveling properties, which is expected to find extensive use in dyeing leathers. In this application it forms a part of many basic mixtures for the production of browns and tans.

The William H. Nichols medal has this year been awarded to Dr. Irving Langmuir in recognition of his work as embodied in an article on "The Arrangement of Electrons in Atoms and Molecules."

To manufacture broad silks, cotton goods and textiles, Max Schlesinger & Sons, Inc., has been incorporated under the laws of New York with a capital of \$100,000. The offices of the new company will be in Manhattan, and the incorporators consist of M. Schlesinger, E. Schlesinger and A. R. Schlesinger.

At Gloversville, New York, the Ward Hosiery Corporation has been incorporated under the laws of that State to manufacture hosiery. The capital of the new company is \$30,000, and the incorporators consist of H. A. Steele, W. J. Ward and W. H. Skaine.

Dyestuffs and other chemical preparations were damaged when fire recently visited the laboratory of J. C. Haartz at New Haven, Conn. The estimated loss is in the neighborhood of \$20,000.

With a capital of \$300,000, the M. Davis & Sons Textile Company, Inc., has been incorporated under the laws of New York to manufacture clothiers' trimmings. The capital of the new enterprise is given as \$300,000, and the incorporators consist of M. Davis, I. H. Davis and C. E. Davis.



# AMERICAN DYESTUFF REPORTER

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Jan. 26, 1920



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By Josef Loeb





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

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## NOTHING TO GIVE OUT!

No Relaxation of Endeavor to Get the Longworth Bill Passed Must Take Place While This Continues to Be the Word from Washington

AS we go to press this week, official Washington remains as dumb as an oyster so far as further word on the probable chances of the newly proposed substitute for the dye-licensing feature of the Longworth bill are concerned. Just what may be brewing continues more than ever to be the principal topic of speculation throughout the trade; but beyond the fact that there is not a little optimism to be noted on every hand, not the slightest inkling of what is to follow can be gained.

There may be those who are possessed of inside information. If this be true, it is being guarded as jealously as a Favorite Wife in Turkey. But we are doubtful if such is the case. Probably there are some who are guessing, and guessing pretty accurately; and probably there are some others who even go so far as to strongly suspect. But as for real, concrete, solid facts which one can seize hold upon and deplore or gloat

over—these are most likely strictly confined to members of the sub-committee of the Senate Finance Committee.

For that is where the proposition which recently electrified the trade, and caused fresh hopes to spring up in the bosoms of manufacturers, importers and consumers alike, still is hibernating. Not a whisper, not a peep—not even the most infinitesimal of squeaks—has been heard from the worthy gentlemen now engaged in considering what they had best tell the Finance Committee to tell the Senate proper about the bill has been vouchsafed. Not a line can be added to the information which came down from Washington last week, which was definitely to the effect that while nothing is certain in this harried world of ours, the chances for a favorable recommendation were considered to be hopeful.

There is a remote possibility that a report will be made before this issue

of the REPORTER can be published, but this is not believed to be worthy of any vast amount of credence. Information as to what settlement—if any—has been arrived at in the case of the tariff features of the proposed substitute, and of the time which it will be in force, is also what might be termed overwhelmingly unplethoric.

In short, all is so quiet along the proverbial Potomac that one having a keen sense of hearing might rather easily hear a pin, or even a whole paper of pins, drop with a series of reverberations which, by contrast with the prevailing stillness, might seem to resemble nothing so much as a passel of dish-pans sliding down the Capitol steps. Which is to say, in plain, unvarnished English, that the silence which is now issuing in thick, murky clouds from behind the doors of the room where the sub-committee does its sub-committeeing at, is such a superlative sort of a silence as to be downright depressing, if not absolutely abysmal. We trust we are making it sufficiently plain that there is, as fabulously wealthy and supposedly scoundrelly heads of giant trusts being investigated by the Federal authorities always say to reporters, "Nothing to give out."

In the entire absence of definitely serious developments in the situation, it is difficult to resist the temptation to grow festive and sportive and gay in these columns this week, as we have now and then ventured to do in the past, for, as our older friends are well aware, the REPORTER has always maintained that since we are all obliged to be serious so much of the time, a little relaxation even in the discussion of business matters does no particular harm. It might seem perfectly in keeping to take a week "off," so to speak, and consider some of the lighter and pleasanter aspects of recent doings in the trade.

But the time has not yet arrived for us or anyone really concerned with the welfare of the dye industry to throw reserve to the winds and celebrate. The time has not yet arrived—no matter how

mere surface appearances may be misinterpreted by some—to relax in the slightest degree the earnest endeavor to keep behind those who are working for the good of the industry, and to maintain the most uninterrupted unity in the demand that the Senate consider the cases of dye makers, dye importers and dye consumers alike impartially and strictly on their merits—not forgetting the duty owed the nation as a whole—before rendering the final verdict, which should be forthcoming with only the delay occasioned by a proper discussion of *all* the facts.

Although there are no momentous developments to record, the situation is fundamentally just as serious and urgent as ever, with every additional day increasing its gravity. There has been much encouragement lately, and it came at a moment when many were almost ready to believe that a great folly on the part of the Senate in allowing to expire what the House created to safeguard American coal-tar manufactures, was about to be committed. But it must be remembered that until the Longworth bill, with sufficient in the way of "teeth" to mean real protection, is actually a law of the land, the status of the industry is just what it was on November 11, 1918. In other words, it is still at best a pitiable thing, with no real blood, bone and muscle to enable it to grow up and be a big self-reliant and hardy individual like the German dye—and explosives—industry.

One does not have to go far to meet a man or woman who will tell you that the American dye industry has flashed in the pan and that American dye makers will never be able to duplicate the products of Germany—not if they try a thousand years. It is laughable, and it is at the same time sickening to those who know the real truth; that sort of thing was supposed to have been dead months ago, but it is not. The general public heard American chemists and manufacturers lauded to the skies. The idea took a firm hold on the popular fancy; it was not hard to convince Americans that their own people do



not have to yield the palm to Germany in this or in any other enterprise. The public believed—and looked for results to follow.

Then they were told that such a highly complicated industry took time to develop, and settled back to wait. No doubt many expected impossibilities; nevertheless the campaign of education which was waged at the time was and still is very thorough and very efficient and very productive of good. The people learned the importance of vat colors in any national color scheme; they learned the extreme difficulty which attaches to the commercial production of these dyes, and they were prepared to see our chemists, after a decent interval, make a beginning, especially since it was given out that so many German dye patents had been seized. Even at that, they expected more in the way of speed than had ever been accomplished before in this line of endeavor, but the real tragedy lies in the fact that *they did not expect so very much more than American chemists would have been able to give them.*

It is doubtful if the bulk of the thinking public expected to see anything like a full range of colors begin immediately to flow from Wilmington, Carrollville, Buffalo, Marcus Hook, and elsewhere. But the announcement from time to time in the daily papers of even the beginning of production of a new vat color would have had a powerful effect and would have caused many to say to the scoffers, proudly, "Just you wait. Give 'em time; they're coming!"

Now, why do we say that the American dye industry is a fit subject for pity? Well, why would one say the same of a champion sprinter who essays to run a hundred yard dash in competition with pieces of cord bound tightly about both his thighs?

Such a man's strength and nervous energy would be there, but unavailable to him through want of the revitalizing fluid which conveys fresh energy from the lungs. And if the cords were left upon him permanently, we should soon have a hopeless cripple whose shriveled

limbs would be frightful things to gaze upon.

The American dye industry is a pitiable thing by comparison to *what it now would be* had it been assured of protection back in the Autumn of 1918. Although the efforts of our manufacturers have been prodigious, especially when one considers the multitude of other demands made upon them, those efforts, are, when placed alongside of what their future drives will be if they are given a chance by the Senate, merely desultory.

We are sure this is not too extreme an expression to use in the present connection. Because they have not been able to put forth their real effort, the public thought they were laying down! They have had to battle against this impression while planning how they best could make the Congress see their needs and the needs of the country. Small wonder they haven't shown the speed and resource of which they are certainly capable to a degree which will

surprise the world, let alone the United States!

There are some who will never believe this. But will a chance to demonstrate it cost the country, then, so very much? At least these people should be willing to agree that they should have a chance to show what they can do. And despite any impression to the contrary, this chance they have not yet enjoyed.

No, it is not altogether the fault of the Senate. If all goes well, there will have been no great harm done, beyond the delay. But that time cannot forever be put off, and we may well express the wish that when the next issue of the REPORTER appears, there will no longer be Nothing to Give Out.

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## A WORD TO DYESTUFF USERS

BY H. G. MCKERROW

The development of the dyestuff industry in the United States has reached a point where there should be a full, frank, and sympathetic appreciation and understanding on the part of dyestuff users, of what has been accomplished, of the difficulties overcome, of those still to be confronted, and, above all, of the reasonable promise for the future.

It is easy enough to build a brick wall, given the necessary bricks and mortar, but when the bricks and mortar have themselves to be made first, and when the very raw materials used in making them have to be manufactured, it becomes a very different matter.

### WHAT HAS BEEN DONE

This was the situation that confronted the dyestuff industry when the outbreak of the war closed, at a moment's notice, our customary avenues of supply, and instantly threw upon the burden of making, not one industry, but three, all of a complicated and highly specialized nature.

To provide the color-using industry

with their requirements, with the least possible interruption and dislocation of their operations and in the shortest possible time, was in itself a sufficiently stupendous task, but it was made infinitely greater by the fact that the very raw materials which were requisite for making dyes, were also in urgent demand for making explosives. When this country entered the war, this demand became a Government necessity, paramount and unavoidable, and to it every other commercial condition had to give place.

The same war needs, too, encroached upon every other industry whose facilities were called for by the new industry; structural steel and iron for plant, chemical equipment and skilled labor; all were being poured in ever increasing volume, as the menace grew, into the vast stream of effort destined to overwhelm the forces which had challenged the peace of the world.

It seems little short of marvellous that the industry has been brought into existence at all in the face of the obstacles with which it was confronted, and yet, to-day, our textile mills are running at their full capacity, producing what is generally conceded to be the most kaleidoscopic line of colored fabrics the world has ever seen, a very riot of design and color, in woven, dyed and printed goods.

### ANGER OF LOSING PERSPECTIVE

There is still much work to be done, and still many colors to develop, but in the emphasis which has been placed on certain classes of dyes yet to come from American laboratories and factories, there is a great danger of losing the whole perspective, and failing to recognize and appreciate the immense progress made.

The advent of a new color on the market, in commercially available quality and quantity, conveys no idea to the general public, or even to the average user, of the expenditure of time and human effort behind it, the meticulous research, the retracing and repe-

tition of steps, the spoiled batches before the final and completed result can be confidently placed before the user. Some dyes have cost upwards of £100,000 before a single pound could be offered for sale.

It must be clear to any business man that conditions like these must exert a controlling influence on the question of price, and the cost of a dye is not merely expressed in terms of the material and labor necessary to produce a pound of that dye, but must include its pro-rata share of the capital expense that has been incurred in its development in the first place.

The fact is well known that prior to 1914 foreign dyestuff manufacturers sold dyes on the American and English markets at less than the cost of manufacture in many instances; the development of the industry after forty years of concentrated effort, had enabled them to produce collateral lines of pharmaceuticals and other chemicals, many of them commanding high prices as drug products, to an extent which afforded an opportunity to regard the dyes themselves as by-products. Thus a double purpose was achieved; the prices of these colors were reduced to a point impossible of approach by less well developed manufacturers, and American and British interests were discouraged from establishing their own sources of

supply, or were strangled at birth if they had the temerity to attempt to do so.

During the recent hearings before the Ways and Means Committee, and the debates in Congress, an undue stress has been placed on the relative importance of the vat dyes to the textile interests. Without minimizing for a moment their essential value to those manufacturers who require them, it is perhaps only fair to state that in 1913 they constituted, even including indigo, only 25 per cent of the total consumption of coal tar dyes, and without indigo only 4 per cent of the whole. To-day, practically the total requirements of our manufacturers in regard to indigo are being taken care of by American dye makers, by a product which, in point of quality, is fully equal to that made by Germany, so that the still existing hiatus in vat dyes remaining to be filled by importations is only 4 per cent of the total needs.

The vat dyes, too, are in a process of development; successful research has been devoted to them for many months, and perhaps their availability is much nearer than impatient manufacturers think; already the first precursors are on the market, and their quality affords ample guarantee that the whole line will not be inferior to those with which our manufacturers were familiar and with which they built up their reputations and trade.—*American Wool and Cotton Reporter*.



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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**QUO USQUE TANDEM ABUTERE PATENTIA NOSTRA?**

Two thousand years or so ago one M. T. Cicero arose in the Roman Senate and addressed to that august body a series of Philippics which have come down to the present time as models of denunciation and exhortation. Mr. Cicero had good and sufficient reasons for feeling outraged at the dilatory tactics of the Roman legislative body and he told them so in most unequivocal language. What Mr. Cicero demanded was action—and it is a matter of record that he got it.

It is unfortunate that we have no Cicero included in the membership of the United States Senate to-day. Had we such a one it is at least possible that he would, ere this, have stirred that body to definite action, not alone in the matter of the Peace Treaty but in regard to the dyestuff situation and other legislation of equal importance, which has for some months been under consideration without as yet producing tangible results. We do not mean these words of condemnation to apply to individual Senators who, we know, have done their utmost to get action, but we mean them to apply to a system of party leadership which, apparently, makes it impossible for an individual Senator to vote on concrete issues as his conscience dictates and the inherent merits of the question demand.

The dilatory tactics of the Senate in regard to effecting a compromise on the Peace Treaty have very nearly made the United States ridiculous in international circles. Under the leadership of certain

broadminded Senators who realize to the full the necessity of settling without further delay this paramount question of international welfare, a compromise seemed about to be effected when, at the last moment, we are told that certain "bitter-enders" have threatened Senator Lodge with all manner of dire retributions in case he weakens one iota on his Article X reservation.

There is a limit to the patience of the American people. If either party fancies that by bickering of this sort it is strengthening itself with the voters of the nation it is sadly deluded. What the American people want is action; the definite ratification of the treaty with interpretive reservations—certainly without any such amendments as shall reopen the whole question of an international settlement.

But it is with dyestuff legislation that we are chiefly concerned. The Congress of the United States, both House and Senate, have expressed themselves individually as realizing to the full the necessity of protection for this so essential key industry, yet, when it comes to a question of enacting suitable legislation to effect this protection, they seem utterly lacking in an ability to get together.

A week ago we were informed from Washington that the sub-committee of the Senate Finance Committee had substantially agreed upon a recommendation to that body of a substitute for the licensing provision contained in the original Longworth Bill which, it was believed, would be satisfactory to all parties. The situation remains as it then was. The Finance Committee still awaits the report of its sub-committee and the Senate as a whole must longer await the report of the full Finance Committee, after action upon which the amended measure must go to conference with the House. All of this procedure takes quantities of time and it seems impossible to say when this greatly needed bit of legislation may finally become law.

We believe an officer of a large Canadian textile manufacturing concern



voices the opinion of a vast majority of the dyestuff fraternity when he writes us as follows:

"Gentlemen—

"The writer is an American and reads with pleasure every issue of the REPORTER and it is a source of gratification to find you continually rapping Congress. We hope you keep up the seemingly endless task of endeavoring to get the committee to play the part of '100 per cent Americans,' and sincerely hope you do not get discouraged."

We are optimists. We believe today's clouds will yield to the sunshine of to-morrow. But the way is long and what we need is *action*. Let us all get together and push. Let each one of us tell his Senators and his Congressmen just how he feels in the matter. Until this greatly needed bit of legislation is enacted into law it will be impossible for our consumers and manufacturers of dyestuffs to plan confidently for the future of the industry.

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## PRINCIPLES OF GARMENT DYEING

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### Necessity for the Proper Kind of Water and a Rigid Control of Temperatures if the Best Results Are to Be Obtained

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By JOSEF LOEBL

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The temperature of the dye bath and the hardness of the water are two factors that exert a great deal of influence in the results that will be obtained when redyeing garments, and which are not given the consideration that they should by the large majority of the garment dyers of the country. Satisfactory results cannot be obtained when water is used that is not fitted for the work, nor can the best dyeings be produced when the dyer ignores temperatures. The dyeing of garments has always been a scientific occupation and it is becoming more so every day. The man

who would become a master of his craft, who would produce work that compares favorably with the work produced by other men in the business, must be on the alert continually and take advantage of all knowledge obtainable pertaining to his profession. The volume of the garment-dyeing business is increasing rapidly, as is also our knowledge of the principles underlying the work. Garment dyeing embraces the majority of all of the dyeing processes; we are learning more about these processes every day, and the more we learn the more we should be impressed with the fact that the proper water should be used and that unless the proper control is exercised over the temperature of the dye baths the results will not be as satisfactory as would otherwise be the case.

The fundamental fact in regard to temperature and the single bath method of dyeing is that the nearer the boil the dyeing is carried out at the more color the wool will absorb in comparison to the silk or cotton. The reverse is also true: The lower the temperature at which the dyeing is due the more color the silk or the cotton absorbs in comparison to the wool. It naturally follows, therefore, that when dyeing a garment composed of silk, wool and cotton an average or mean temperature must be struck if all three fibers are to be colored a uniform shade.

In practice, when dyeing garments composed of wool and cotton it is customary and very necessary that the cotton be dyed a heavier shade than the wool. If this is not done the cotton will show up in sharp contrast to the animal fiber. To secure this result it is very evident, if the fabric is to appear uniform in color, that the dyeing must be carried out at slightly under the mean temperature.

Different dyers use different dyeing methods to obtain an even shade when dyeing a fabric composed of two or more textile fibers, but the principle is the same in all three



cases. These different methods of procedure may be illustrated best by describing how black is dyed on union material.

One dyer, in this case, will dye the material for forty-five minutes at a temperature of 195 deg. Fahr. Another will enter the goods at the boil, maintain this temperature for twenty minutes, and then shut off the steam and allow the dye bath to cool down until the silk and cotton are sufficiently dyed. The average time consumed in this case is about forty minutes. Another will start the dyeing at a low temperature and bring the dye bath to the boil in about thirty minutes, shut off the steam and allow the bath to cool down to the temperature at which the dyeing was commenced. This latter method is the one most commonly used by the garment dyers of the country.

The principle governing all three of these methods is the same. In the first case the dyeing is done at a mean temperature all of the time. In the second method the dyeing is started above the mean temperature and cooled down below the mean temperature, and thus matters are balanced. The third method is similar to the second, but requires somewhat less time. Which of these methods is to be preferred is an open question, as each one has its advantages. It is claimed, and quite correctly, that garments with tight seams are covered better when the dyeing is commenced at the boil than when commenced at a lower temperature.

It would be folly to attempt to lay down any hard and fast rules for garment dyeing, as the nature of the material received varies greatly in quality. In one case the percentage of wool in a garment will be greater than the cotton or silk; in another case the cotton will compose the greater portion of the material. Again the wool portion will be composed of a soft botany and at another time a tightly twisted crossbred. In this comparison the botany would require

a much larger amount of dyestuff than the crossbred to get the same depth of shade on both materials. It is necessary, in most instances, for the dyer to use his head and proceed with a method that will give him the best results. And, after all, results are what is being sought. If the results are obtained the methods by which they were obtained is not of much moment.

When dyeing silk and wool garments in an acid bath it is very essential the proper temperatures be used. Too high a temperature drives the color into the wool, to the detriment of the silk, while if the temperature is too low the silk absorbs the color, leaving the wool undyed.

When filling up cotton with direct cotton colors in a fresh bath after the wool and silk have been dyed in an acid bath with acid colors it is very important that proper temperature regulation be exercised. Many otherwise skillful dyers fail to see the

importance of proper temperatures in this case, and as a result their dyeings are not as good as they should be. I have studied this matter very carefully and have found that the dyeings must be carried out at 140 deg. Fahr., otherwise a full shade will not be obtained on the cotton. If the temperature is higher than this the wool will take up too much of the dyestuff and will be thrown entirely off shade. If the temperature is lower than 140 deg. the dyestuff is only deposited and not fixed on the cotton. As a result it is easily rubbed off, a most objectionable feature in connection with garment dyeing.

It is a fact easily proved by experiment that practically all direct cotton colors rub badly if dyed in a cold bath. If, however, dyeings are made at increasing temperatures, they gradually become faster. When the temperature reaches 140 deg. Fahr. they are practically fast to rubbing, except in the case of red shades, which are the only colors not quite clean in this respect.

Filling up the cotton at 140 deg. Fahr. also has the additional advantage that much deeper shades are secured from the same percentage of color than when dyed cold. Moreover, not only is the shade fuller and faster to rubbing, but also it is faster to washing. The fastness to washing of the direct cotton colors becomes better the higher the temperature at which they are dyed. The cotton in garments, therefore, should always be

filled up at a temperature of 140 deg. Fahr. to secure fastness to rubbing.

All direct cotton colors are not suitable for use in filling up cotton at a temperature of 140 deg. Fahr., owing to the fact that at this temperature they also dye wool. This, of course, would spoil its shade. However, all color makers have a full range of direct cotton colors which possess good affinity for cotton at 140 deg. Fahr. and which leave the wool clear.

While fabrics composed of wool and silk do not often come into the hands of the garment dyer, he should know how to handle them, as they are expensive and any damage to them in the course of dyeing means an expense in the form of compensation to the customer. The wool-silk fabrics, better known under a number of different trade names, are difficult to handle, because they must be dyed with acid colors, some of which dye the wool and only stain the silk. Also, some of these acid colors dye the wool one color and the silk a different shade when the dyeing is carried out at the boil. At a low temperature many of these dyes which color the wool and silk to the same shade at the boil dye only the silk. This fact is taken advantage of to dye wool and silk two different colors.

Besides the choice of the dyestuff the temperature of the dye bath is of importance, and due regard must be paid to the affinities of the dyestuffs used when dyeing wool and silk material. If, for example, the fabric is to be dyed one color a dye must be used which has the same affinity, or nearly the same affinity, for both of these animal fibers. The dyestuff dealer from whom the dyestuff is purchased can always furnish the information on these points.

The more important methods for dyeing fabrics of wool and silk are those by which the whole fabric is dyed the same shade. Some of these are as follows: The goods are well wetted out before being entered into the dye bath. The bath, consisting of

from 30 to 40 gallons of water for every 10 pounds of goods, is heated up and 5 per cent of sulphuric acid and the necessary amount of dyestuff is added. After entering the goods the bath is brought to the boil in the course of thirty minutes and then boiled for another thirty minutes. The boiling is stopped as soon as an inspection shows that the color is uniform all over the fabric. If at the end of thirty minutes the silk is still lighter than the wool, which may be the case when dark colors are being dyed, the steam must be at once shut off and more dyestuff cautiously added to the cooling bath. If it is necessary to shade the silk with basic dyes, the first bath is run off and the shading done in a fresh acetic acid bath at the ordinary temperature.

The influence of temperature is well illustrated in the case of Crysphenine, a direct yellow, which, contrary to other direct yellows, will dye any wool or silk in mixed goods at a temperature of 140 deg. Fahr. Evidently this dyestuff cannot be used for filling up cotton in previously acid dyed half-wool goods.

Metanil Yellow, Azoflavine and Azo Acid Yellow will also dye wool and silk an almost uniform shade at the boil, while Naphthol Yellow will dye the wool a much heavier shade than the silk.

Before closing this article I wish to say a few words about water and its hardness. The water most troublesome to the dyer is that which contains sulphates and bicarbonates of lime and magnesia. Sometimes, also, magnesium chloride and iron compounds cause much trouble when contained in water used for bleaching and dyeing. Impurities in water such as these mentioned, and others, precipitate a portion of the dyestuffs, soap oils and mordants, causing spot and other irregularities, as well as a loss of chemicals.

Water free from lime, magnesia and iron, or water that contains but small quantities of these impurities, such as

rain water and distilled water, is known as soft water. The hardness of water is expressed in degrees.

Whether a water is good or bad depends upon the use to which it is to be put, but when considered for dyeing purposes no water should be used which exceeds 25 deg. of hardness. Water harder than this is not suitable for use in the dyehouse. Water may be softened in a number of different ways. Temporary hardness is removed by boiling. Hardness that cannot be removed by boiling is known as permanent hardness. When it is necessary to soften water in large establishments a water softener is used.

In smaller establishments purification of water may be carried out in large wooden tanks. For every degree of hardness  $2\frac{1}{2}$  ounces of soda ash are added for each 1,000 gallons of water in the container. Thus, if the water contains 20 deg. of hardness it is necessary to add 3 pounds of soda



ash for each 1,000 gallons. After the ash is added and the water boiled well it is allowed to stand for a few hours before being used, in order to allow the impurities to precipitate. It is the better plan to work with two tanks. Their size should depend upon the requirements of the plant each day.—*National Cleaner & Dyer*

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## INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the AMERICAN DYESTUFF REPORTER by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, Woolworth Building, New York City.

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K. L. R. Co.: Question—Can you refer us to a method of determining the amount of free sodium sulphide in a sulphur dye bath? We would like a rapid test that would serve to guide us in making additions of further amounts of sulphide in a standing bath. Just now we wish to apply it to blacks and blues, but expect to use other colors a little later.

Answer—For straight sodium sulphide solutions probably the best

method is to exactly neutralize the solution with acetic acid (phenolphthalein indicator) and then titrate with a standard solution of crystallized zinc sulphate. Cadmium sulphate is used on a spot plate or paper as an outside indicator.

In the case of a dye bath, we believe that if one acidified it with acetic acid and boiled, the  $H_2S$  could be evolved and then absorbed in an  $NaOH$  solution. This solution would then be titrated as above. In some dye baths the titration might be carried out directly, but in most the distillation would be better.

We have no data on such a method, but see no reason why it should not be satisfactory. The organically combined sulphur of the dye should not be evolved by the acetic acid, while all the sulphur as sulphide should be evolved. Air-free water should be used to prevent oxidation.

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B. & W. Co.: Question—Will you kindly inform us as to the dyes that are now available, and from whom, that are suitable for the dyeing of blanket border yarn, especially pink and blue, that will withstand peroxide bleaching?

Answer—Our inquiry throughout the trade here fails to reveal anything that will stand a thorough bleaching with peroxide and at the same time give a brilliant and delicate color such as you probably require.

As you probably know, the ordinary colors used for borders of this sort are Rhodamine and Victoria Blue, both of which are available from various sources. Both of these colors will stand a reasonable amount

of peroxide, but are not what could be called absolutely fast to peroxide bleaching. The chrome colors will stand peroxide without limit, but they produce shades which we imagine are heavier and duller than those you require. A suggestion which would seem to be the easiest solution of your difficulty would be to bleach your yarn by the peroxide process before weaving your blankets, and dye your border yarn with Rhodamine or Victoria Blue, and then weave in with the bleached yarn.

### NATIONAL ANNOUNCES TWO NEW COLORS

The National Aniline & Chemical Company, Inc., announces the production of two new basic colors, known as Methyl Violet 5 B and Fuchsine N B.

The good tinctorial value and the excellent solubility of these dyes will prove especially serviceable for the dyeing of leather, silk and paper, also for cotton and silk printing.

### SAYS PROTECTION IS ESSENTIAL

Early return to the use of German dyes in America unless Congress finds some way to strengthen the American industry was predicted by George Weiss, of New York, in an address before the National Association of Dyers and Cleaners in convention at Cincinnati, Ohio, on January 21.

The labor situation in the dyeing

and cleaning industry occupied the attention of the convention.

Arthur Berg, chairman of the war service committee, urged that members of the industry seek to interest more Americans in the business and eliminate "foreigners who go back to the old country when they have amassed a snug fortune."

### AMERICA INVITES ALL NATIONS TO TELL OF TRADE WANTS

Local Chambers of Commerce in all parts of the United States are taking an active interest in the plans for securing delegates to the Seventh National Foreign Trade Convention, which will be held at San Francisco, May 12-15, 1920, under the auspices of the National Foreign Trade Council, the chairman of which is James A. Farrell, president of the United States Steel Corporation.

So that the American business men may obtain first hand information regarding the market conditions in foreign countries, the Council has invited special trade advisors from the leading nations of Australasia, the Far East and South America. The services of these trade advisors will, of course, be offered to the convention delegates as a part of the regular convention program.

Information regarding the special transcontinental trains to the convention, as well as hotel arrangements and convention plans, is being furnished by O. K. Davis, secretary, National For-

eign Trade Council, 1 Hanover Square, New York City.

### NOTES OF THE TRADE

Under the laws of New Jersey the Norwich Silk Corporation has been incorporated to manufacture silk and other textile fabrics. The capital is \$50,000 and headquarters will be in Paterson.

The Summit Dyeing Company has been incorporated under the laws of New Jersey to conduct a general dyeing and bleaching business. Officials of the company will be in Summit, North Bergen. The capital of the new company is \$50,000.

To manufacture silk and other textile fabrics, the Harmony Silk Company has been incorporated under the laws of New Jersey. The plant of this concern will be in Paterson, and the capital of the company is \$125,000.

With headquarters at Paterson, N. J., the B. & G. Silk Mills have been incorporated under the laws of that State to manufacture silk and other textile fabrics. The capital of the new firm is \$100,000.

To manufacture textiles, the Ury-Gants Company has been incorporated under the laws of New York. Head offices of the company will be in Manhattan, and the capital is given as \$50,000. Gustave Ury, 6 West Twenty-third Street, is mentioned as incorporator.

The management of the Fulton County Silk Mills, Gloversville, N. Y., has recently awarded the contract for enlargements and improvements

which will practically double the present output of the plant.

It has been announced to the trade that the Weidmann Silk Dyeing Company, Paterson, N. J., has purchased the Lehigh Silk Dyeing Company, of Allentown, Pa.

With a capital of \$500,000, the Banna Mills have been organized at Goldville, S. C., to take over, it is understood, the plant of the Banna Manufacturing Company, which has 352 broad looms and 14,000 spindles. Officers of the company consist of S. H. McGhee, president, and I. M. Mauldin, secretary and treasurer, of Columbia, S. C.

With the exception of Japan, Canada was the heaviest purchaser of dyestuffs from the United States during the month of October. Our neighbor across the border bought from the American manufacturers \$72,744 worth of aniline colors, \$15,898 worth of logwood extract, and \$139,403 worth of all other dyestuffs.

"Vat Dye Patents" is the title of an extremely interesting pamphlet just published by the Chemical Foundation, Inc. This brochure contains much information of value to manufacturers and others connected with the dye industry, and will be sent, upon receipt of a nominal price to cover the cost of printing, upon application to the offices of the organization, 81 Fulton Street, New York.

The Government has announced that the Charleston plant of the Edgewood Arsenal, located at Belle, W. Va., is to be sold, and bids are being received through the Chemical Welfare Service. This plant, which is best fitted for the manufacture of chlorine, cost the Government \$800,000 to build, of which \$300,000 was paid for the land and the original steel building, office building and dwellings.





# AMERICAN DYESTUFF REPORTER

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Sub-committee of Senate Finance Committee Has Apparently Reached Agreement on Substitute for Licensing Sections of Longworth Bill

### **Harsh Words from Abroad**

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By William Shaw



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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## THE DIE IS CAST

Details of the Newest Substitute for  
Licensing, Which Seems Likely to  
Be Last Word of Sub-Committee

AT last word comes from Washington that the members of the Dye Sub-committee of the Senate Finance Committee are of one mind on the question of what had better be done in order to keep the Germans from destroying the infant American dye industry. The die, so to speak, has been cast; the matrix, unless all indications are woefully distorted, has been made, and it remains but to see what kind of an impression is created by the sub-committee's recommendation.

Two weeks ago, the REPORTER presented the draft of the proposed alterations to the licensing sections of the Longworth bill. It was believed then that the best solution of the many difficulties of co-ordinating the best interests of manufacturer, importer and consumer had been found. Evidently the sub-committee did not think so, for since that time, yet another plan has been evolved and drafted. Working in conjunction with the Tariff Commission and the War Trade Board, the sub-

committee has laid out a method for accomplishing the preservation of the industry which provides for what is virtually an out and out embargo and which, if enacted into law, will most certainly put an effectual barrier between our manufacturers and any plans which the Germans may have cherished of undermining the industry here.

Important in the extreme are some of the changes provided for in this newest product of the powers that be, and no one can say that they are wanting in zeal, at least, when it comes to willingness to give American chemists and capitalists a chance to show their metal in this necessary art.

The crux of the whole measure, as now proposed, lies in Section 504 of the measure, which reads:

"That except as hereinafter provided, no article enumerated in Group II or Group III (raw materials and crudes, and finished dyestuffs respectively) of Section 500 of this act shall be admitted to entry, or delivered from cus-



toms custody in the United States or in any of its possessions unless the Tariff Commission shall determine that such article or a satisfactory substitute therefor is not obtainable or in any of its possessions on reasonable terms as to quality, price and delivery."

One of the first to be noticed among the proposed changes is the omission of any provision for the Importable List and the Conditionally Importable List mentioned in the measure given two weeks ago. The new proposal likewise, apparently, does away with the ability of the consumer or importer to import in bond against the time when the need for any given dyestuff not obtainable here might suddenly arise.

Whatever treatment it may receive at the hands of the Finance Committee, and later the Senate and lastly the Senate and House as a whole, the newest draft is complete so far as the sub-committee is concerned, it is believed. At least, this body has given out that there will be no more hearings of any kind, some of the members professing to have already heard enough to last them the rest of their lives!

This last is doubtless true, for if anything could be added to the testimony already placed before these gentlemen, it would have to be drawn from the justly celebrated Fourth Dimension. No one can say that the facts have not ALL been presented. What transpires in the way of a final recommendation is strictly up to the sub-committee—at least in the case of the Longworth bill. The possibility of the drafting of an independent bill by members of the dye fraternity has been discussed to a certain extent, and in the event of failure to secure adequate protection such a proceeding would not only be quite in order, but thoroughly advisable.

The sub-committee, as has been opined in these columns before, is obviously eager to see the industry protected, and to see it protected with as little inconvenience to both importers and consumers as is possible. That is precisely the desire of the manufacturers, and it is the course persistently

worked for by this publication ever since the United States discovered that it had a dye problem in addition to its other cares. The only real difficulty in the way of the successful accomplishment of this has been the reaching of an agreement on how best to bring it about. It is true that the matter has been complicated by occasional disputes based upon factional differences, and by German propaganda, but after all, the sub-committeemen, while they have been obliged to work slowly, have shown themselves not easily carried away from the real facts of the issue by either of these. It is the belief of this journal that these gentlemen are making an honest effort to bring about justice for all, and that they should receive full credit for their endeavors in the face of what must have been to them a most complicated and puzzling tangle of jaw-breaking technical terms and conflicting testimony.

But "to our muttons" once more. Sections 505, 506 and 507 of the proposed substitute act concern themselves with clearing up what is meant by "reasonable terms as to quality, price and delivery." These are defined as to "quality" as meaning an article "capable of giving results in use substantially equal to a competing article of foreign manufacture." Reasonable price means "the lowest price or prices, for the time being, which . . . shall be sufficient to insure the maintenance in the United States or in any of its possessions of the production of such article by an efficient plant operating on a substantial commercial scale." "Reasonable terms as to delivery" means "delivery within six weeks of an amount of such article or articles, which . . . shall be efficient to supply our need in the particular case for a period of six months." The determination of all of these matters, it should be remarked, is placed by the measure squarely up to the decision of the Tariff Commission.

We quote further:

"Section 508. The Tariff Commission in executing the duties imposed upon it by this act may regulate its own

practice and procedure and make all rules and regulations necessary and proper for the accomplishment of the purposes of this act.

"Section 509. The Tariff Commission shall have exclusive jurisdiction among consumers in the United States and its possessions of any of the articles enumerated in Group II or Group III of Section 500 of this act which may become available to such consumers under Annex VI of Section I of Part VII of the Treaty of Peace with Germany submitted by the President on July 10, 1919, to the United States Senate."

Section 510 of the proposed measure provides for the extension of the provisions of the Trading with the Enemy Act for ninety days following its passage and states: "All individual licenses issued by the War Trade Board section of the Department of State prior to the expiration of the said ninety days shall remain in effect and the importations under such licenses shall be permitted."

Ninety days after the date when the proposed measure may chance to take effect, the Secretary of State, according to Section 511, "shall cause to be transferred to the Tariff Commission all papers, questionnaires, documents, books and other records of the War Trade Board section of the Department of State relating to the issuance of individual import licenses on articles enumerated in Group II and Group III of Section 500 of this act."

Section 512, which follows verbatim, concludes the changed portion of the measure:

"That for the purpose of enforcing the provisions of this act the Tariff Commission shall have power to require by order from time to time, from any persons engaged in the manufacture within the United States or in any of its possessions of any articles enumerated in Group II or Group III of Section 500 of this act and who ship or deliver for shipment any such articles

in interstate commerce, sworn statements showing their actual production, stocks on hand, contracts or accepted orders for future delivery and cost of production of such articles and price at which each article is offered for sale, together with a sample thereof, if desired, and any other information which the tariff commission may require.

"The Tariff Commission shall also have power, through its duly authorized agents, to visit and inspect all factories and warehouses and books of record of persons engaged in the manufacture within the United States or in any of its possessions of any of the articles enumerated in Group II or Group III of Section 500 of this act and who ship or deliver for shipment any of such articles in interstate commerce. The powers granted the Tariff Commission shall furthermore be available for carrying into effect the provisions of this act.

"The information thus secured shall not be matter of public record, but shall be for the confidential use of the tariff commission only, and shall not be published or revealed except in the form of tables, averages or summaries, which shall not disclose the operations of individual domestic manufacturers."

Such is the plan which the sub-committee has finally determined upon for the preservation of the American dye industry. As to the time when action on this measure may be looked for we are in the same position as practically everyone else as regards definite information. Estimates range all the way from "a very few days" up to several months, but we are inclined to lean far nearer the former than the latter. The present temper of all hands is not one which will brook much more delay, and the sooner action follows and the matter is decided, the sooner will both manufacturer and consumer profit therefrom.

It is not thought that much more time will elapse; this week or next at the outside will likely find news of the most compelling interest on its way from the national capital. The REPORTER congratulates the sub-committee

men upon their efforts and the industry upon its chances, and with all the rest of us, is waiting patiently.

We feel that comment of a more extensive nature upon the details of the proposal which the sub-committee has prepared, would be superfluous. The industry *must* be protected. If the sub-committee feels that this cannot be accomplished without stepping on someone's toes, why then it were better that some toes be stepped upon than that the whole country should be laid open to the insults of any nation with a properly developed coal-tar industry—and the raucous laughter of the German kartel to boot.

### SOME POINTS IN CARDING

By William Shaw, Unionville, Conn.

How few think justly of the thinking few, how many never think who think they do?

The writer would like to have every Canadian mill man study the above lines, for they mean a great deal in cotton manufacturing. For instance, a picker may be found to be overworked, and nine times out of ten, to remedy conditions, the feed is reduced. To the average mill man this would seem the proper thing to do. But when one will stop and consider he will come to the conclusion, that it is one of the greatest mistakes in cotton manufacturing.

When you reduce the speed of your feed roll, you increase the blows to the inch, and the more blows to the inch and the more severe treatment to which the fibers are subjected means fluffy work, and fluffy work means weak yarn. Never reduce the feed when the change increases the blows to more than forty to the inch.

### GOOD COTTON GOES TO WASTE

Another important consideration is to see, before a picker is set in operation, that the space around the cages is properly covered with leather. The leather should be cut in cylindrical shape, so



as to fit the end of the top and bottom cages. This is neglected very often. As a rule in most mills, when this leath-er wears it is not considered of any importance by the person in charge of the pickers, so the cotton in large tufts can be seen coming from the dust room.

This good cotton escaping from the dust room outlet is a neglect that is very expensive, especially at the present time, when the price of cotton is so high, and it is surprising how many mills will allow these conditions to exist and continue, when a few pieces of leather, cut properly and placed in the space around the screens, will save many dollars to any plant where such conditions exist.

The velocity of the air current is also responsible for the amount of waste removed and the loss of good fibers. If the current is too strong, it prevents good cotton from being stricken through the bars, and prevents all the dirt from being removed, since the current is strong enough to carry it forward on to the cages.

If the current is so weak that the dirt drops readily, good cotton may also drop with it, thus making excessive waste, a fan running between 900 to 1,000 revolutions per minute, will as a rule, give the proper current that will allow the removal of the greatest amount of dirt with the least amount of cotton.

#### SETTING THE CARD FEED PLATE

In setting the feed plate on a card, the first thing to do is to arrange the lap guide so that the sheet of lap will not spread beyond the action of the teeth of the cylinder and casing. If this is not considered the loss of good fibers is sure to result, also excess power will be used in revolving the cylinder.

Set the feed plate to the lick-in as close as possible, but care should be taken that no contact takes place. The above is one of the best points in card-ing, because it protects the cylinder by preventing any matter of a hard nature reaching the cylinder. Again, it will

stop the evil known as "flaking." The reasoning at this point is similar to that between the drawing rolls of the drawing or fly frames. The closer the setting between the drawing rolls, the more gradual the draft. The same can be applied to the setting of the feed plate and lick-in. When the space between the feed plate and lick-in exceeds 5/1,000 gauge, the fibers are more liable to be plucked in clusters, hence the evil of flaking which is so detrimental to the product of an even yarn.

In cotton carding another point to consider which causes a great amount of waste, is what is known as electricity in the room. When the room is cold in some mills, it takes nearly an hour before the cards are in proper running order.

The above trouble is due to the doffer comb blade occupying a too high position, which keeps the web too close to the comb shaft. In such a case, the comb should be lowered, that is, the  
*(Concluded on page 12.)*

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**THE TAIL OR THE DOG?**

Perhaps one of the most interesting outcomes of the Senate controversy over the Longworth bill is the proposal, rumors of which are now flying about, to attach to that much man-handled measure an amendment dealing with the present acute newsprint paper situation.

The idea seems to be to propose a law raising the limit of cost on newsprint paper to eight cents a pound, and to permit all foreign importations costing more than that to come into the country duty-free. This, declares Senator Watson, would have the effect of aiding the newspapers of the United States. The object in attaching such an amendment to the dye measure would be to give a vehicle which will carry it through Congress without going through the complicated and painful process of forcing it through the regular channels. House leaders, rumor hath it, are willing to accept this amendment in view of their belief that it is the only means of getting action upon it within a reasonable time.

Looks good for one or the other, if not both! But . . . which the vehicle and which the rider? Is the tail about to wag the dog or has that intelligent canine still sufficient command over his faculties to boss his own caudal appendage? The language employed by Dame Rumor in this case is nothing if not ambiguous, but what does that matter!

Both are live issues and should get attention soon. Those who look to see the newsprint amendment act as interference while the dye bill carries the ball will please write their Representa-

tives and call their attention forcibly to the grave danger confronting our great dailies. And those who have sufficient confidence in the chances of the Longworth bill to see in this move the bright prospects of the newsprint addition greatly enhanced—

Oh boy!

**HARSH WORDS FROM ABROAD**

The process of securing protection for the dye industry of this country has developed its full share of attacks upon many of those who have been mixed up in the struggle. We'll say it has.

One of 'em was Senator Calder's overwhelming attack upon A. Mitchell Palmer while the latter was still Alien Property Custodian. Then there was former Representative J. Hampton Moore's bitter attack upon Mr. Mitchell as Attorney General, and upon Francis P. Garvan, present Alien Property Custodian. But now we come to the goshawfulest attack since the industry, y'ars and y'ars ago, first stood upon its chubby feet, glanced toward Buffalo, and said "Papa!"

We refer to the scathing, soul-searing denunciation of Dr. Charles H. Herty by Irving A. Keene, through the columns of *Drug and Chemical Markets*, issue of January 28. In a lengthy letter to that publication—which he challenges to print it—Mr. Keene uses interrogation mark after interrogation mark and ever so many exclamation points in telling a waiting world just what he thinks of Dr. Herty's opinions as regards German dye stocks available for shipment.

The challenge was accepted by our contemporary, and even at the risk of blasting Dr. Herty's reputation for good and all the letter was printed. We wish space here permitted of its reproduction in these columns, for Dr. Herty's bamboozling of an entire nation is something our readers might like—nay, ought—to know about.

There can, of course, be no doubt of this. Mr. Keene virtually says so. Writing from London, he sails into the worthy Doctor by companies and by

battalions; he busts him wide open, to make use of a vulgar but picturesque colloquialism; he turns him inside out, and finally flings him, pale and gasping, into the uttermost reaches of exterior darkness.

Despite the usual custom of never, never by any chance giving free advertising to a contemporary which is one of the basic tenets of the publishing business, we say: Get this letter and read it. Mr. Keene accuses the editor of *Drug and Chemical Markets* of being "muddled" by "the halo of the mighty Dr. Herty." No doubt we shall all welcome the chance to become unmuddled. And particularly shall we welcome the chance to read the postscript to Mr. Keene's letter which the publishers, correctly appraising its true significance, set up in type somewhat more prominent than the main body of the epistle:

"P. S.—Kindly send me a few copies if you publish, and send one to Mr. John P. Wood, President Worsted Dyers' Association, 521 North Twenty-second Street, Philadelphia, Pa."

Mr. Keene wants to know "how come" the Doctor to make light of his opinions about German dye stocks.

Probably pure jealousy on Dr. Herty's part. He didn't get anything like the cordial reception, and the wineing and dining, accorded Mr. Keene by the German dye barons.

## ARTIFICIAL SILKS

Artificial silks now on the market are divided into three classes, *nitro-cellulose cuprate* and the *viscose* silks. It is essential that the dyer should know what class of material he is dealing with before large quantities are put into work. This is of importance, since some of these fibers, while no visible difference is apparent, will stand treatment absolutely fatal to others. There have been dozens of chemical tests brought forward to distinguish the different makes, but the safest and most practical way is to take small representative samples from each batch and put them through exactly the same process as the bulk will have to undergo. This, of course, does not identify any one of them, but it proves to the dyer whether they can stand a certain treatment or not.

In outward appearance the three kinds of artificial silk are so nearly alike as to be indistinguishable, even a microscopical examination is liable to error however great the acquaintance of the observer with the magnified characters of artificial silk may be.

Many chemical tests have been suggested, the three chief ones being Fehling's solution, the diphenylamine test, and a solution of iodine in zinc chloride.

Certain viscose silks behave in a similar manner as nitro-silks towards Fehling's solution, so that this is a test which cannot be relied upon, while towards the zinc solution some nitro-silks

(Concluded on page 18.)



## SOME POINTS IN CARDING

(Concluded from page 9.)

highest point of the comb blade should be about 3/16 of an inch lower than the center of the comb shaft, and set to the doffer to a 8/1,000 gauge.

### UNIFORM FEEDING

As in the picker room, in the management of cards many points should be watched, which will save the plant many dollars. The first point is the production of good work, which is obtained by having the proper drafts and speeds on every machine, besides having them properly operated.

Have your automatic feed boxes filled regularly, and not let them run too low or have them filled too high, because in the first case the needles of the lifting apron will not have the opportunity to take up the stock to the doffer beater, while in the latter case (due to the weight of so much stock that causes pressure on the lifting apron) the needles take up more stocks which escape the action of the doffer beater, and the result is the production of a lap having a thin and thick portion.

Watch the settings of the cards, and have every part set so as to save your employer a lot of good staple, especially the front knife plate. Sample the stripings from the flats each day, and when a large amount of good staple is found in the striplings, set your front knife plate a little closer to the cylinder. Many readers no doubt will think this a lot of trouble, but if the above is attended to, it will be found that the carder can save his pay just at this point. The second point is to turn off as large a production as is consistent with the quality of the work required. To attain the second point, a carder must be a good judge of cotton and also understand the art of drafting.

### How to RUN POOR STOCK

However, the following may help the reader. When running poor stock, run

slow and have the drafts as short as possible and also make the card sliver as light as possible. It should be understood, that poor stock will not stand the severe treatment the same as long wiry stock.

The third point is to try and have all the webs appear the same, that is, not to have the web of one card appear as if the calender rolls are pulling the web from the comb and the next card having the appearance of sagging at all times. There is no excuse for such existing conditions, for this can be remedied by either raising or lowering the comb. The fourth point is to see that the fly is cleaned from under the card as required and also the strips. It should be remembered that different stocks make a different amount of doffings and strips, and for this reason this matter should be watched. The fifth is to see that the cylinder bearings are properly filled with grease and oil, for the least wear at this point will make the proper setting of the flats impossible. The sixth is to see that the webs on the drawing frames sag slightly. Any draft at this point will cause a different number of fibers in the cross section of the yarn. The seventh is the most important, which is to have the proper tension on all fly frames. This, of course, can be controlled to some degree by the rack gear, but to do this every presser paddle must be occupying the same position. They should all be rounded into shape by a gauge, so that only the termination of the presser finger will rest on the bobbin.

In summing up, it should be remembered that work spoiled on a card cannot be remedied in after processes, and that the basis for strong or weak yarn is laid in the carding.—*Canadian Textile Journal*.

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Announcement has been made by the Rosemont Dyeing Company, of Woonsocket, R. I., of the purchase of a five-ton truck to carry oil from tank steamers in Providence to a 75,000-gallon tank at the company's plant.

## THE STORY OF QUEBRACHO

The complete story of quebracho in Argentina and Paraguay, two of the most important producing countries of South America, has just been written by the Latin-American Division of the bureau of foreign and domestic commerce. Because of the fact that quebracho is one of the most important ingredients entering into the tanning of leather, the story, which follows, is of interest to every person in the leather and shoe industries.

"It is a commentary on the widespread ramifications of modern international commerce that our armies in France, as well as those of England, France, Italy, and the other countries associated with them in the war, are enabled to remain dry-shod through the aid of a commodity found only in the half-explored forests of the heart of South America.

### QUEBRACHO AS A TANNING AGENT

"Since the war began the importance of quebracho as a tanning agent has greatly increased, and it is now said to be the most valuable of all the materials used for this purpose. It is particularly useful for army purposes in that it is employed in the tanning of sole leather, which is used freely in the manufacture of the heavy and durable 'trench' shoes. It has also the valuable quality of acting quickly and thoroughly and of aiding in the action of other tanning materials on the raw leather. Its best work is

done, in fact, when it is mixed with other materials, such as the extract of mangrove, chestnut, or oak bark. With the coming of the European war the demand for quebracho grew insistent, because of the immediate need for leather for military uses and because of the curtailment of supplies of certain other tanning agents, and while not indispensable it can now be termed practically a war essential.

### NATURAL MONOPOLY

"Quebracho is of special interest to students of Latin American resources because it is one of the new 'natural monopolies' of South America, in much the same way in which potash has been a natural monopoly of Germany, jute of India, and henequen of Yucatan. It is a distinctly South American wood. It is not, however, a product of the whole continent but of a region of some 300,000 square miles in the central part of the continent, the center of this region being that territory known as 'El Gran Chaco' in northern Argentina and western Paraguay. These two countries are the chief source of the material, but the trees are found and exploited also in parts of Bolivia, Brazil and Uruguay. They are scattered through the forests, and this distribution makes cutting operations much more costly. The extent of the forests containing quebracho trees has not been definitely ascertained, but there is no fear that the wood will soon be exhausted, as the present cut

is said to be less than the probable annual growth.

#### EXTRACT AND LOGS

"In commerce quebracho is handled in two forms, the extract and the logs. In the last twenty-five years the industry of obtaining the extract has been built up in Argentina and Paraguay and is now in a flourishing condition, although the number of firms engaged is small. But there has continued to be an extensive exportation of logs, particularly to Europe. As quebracho wood is very heavy it is one of the the curious features of the trade that these extensive shipments of logs should continue, when an expansion of the extract industry in South America might provide all the extract needed by American and European tanners and the cost of shipping the wood over 6,000 or 7,000 miles be avoided. In explanation of this large trade in logs, a prominent American tanner states that control of the extract industry is so concentrated in South America that American tanners find it desirable to make themselves independent, as far as possible, of the extract producers; that the proportion of tannin in quebracho wood is so large that the loss involved in shipping the logs is not so great as might be expected; and that a large percentage of these shipments is in sailing vessels. In addition to these reasons there is evidence that the cost of manufacture of extract is less in at least one foreign

country than in Argentina and Paraguay. Before the European war Germany was one of the chief importers of logs, and German factories produced a sufficiently large surplus of extract over domestic needs to permit an exportation amounting to some 20,000 tons per year, at prices less than those of extract delivered in Buenos Aires. It is said that Germany was able to sell the extract at prices lower than those in Argentina because of the skill and training of its labor and its advanced processes.

#### DEVELOPMENT OF QUEBRACHO PRODUCTION

"The first appearance of quebracho wood was at the Paris exposition in 1867, soon after which it began to be used for tanning purposes in Europe. As an important commercial commodity however, it has been prominent for only about thirty years. In 1888 exports of logs from Argentina were valued at 172,700 pesos (peso equals 96.5 cents United States currency) and since then have reached a high-water mark, in 1911, of 6,897,000 pesos. With the definite establishment of the trade in logs and the assurance that the new commodity had come to stay there came also the establishment of the business of making the extract in South America. The first factory was erected in 1889 in Paraguay, the capital being Argentine, but it was not until six years later that exports were first recorded,



40,000 pesos' worth being sent out in that year. Exports continued to expand steadily, reaching a value of about 5,000,000 pesos in 1913. Then the war brought a great increase in price and in demand, and the value mounted to 15,873,000 pesos in 1915 and 19,663,000 pesos in 1916. Besides the first factory five others have been erected in Paraguay, all but one in the Chaco. The six establishments have an estimated capital of \$5,000,000, a total capacity of about 38,000 metric tons per year, and a production in 1916 of 28,451 tons.

#### LARGEST IN ARGENTINA

"The largest extract-producing company, however, is in Argentina, where in 1910 nine companies were operating. This company is known as La Forestal, its registered name being Forestal Land, Timber & Railways Co. (Ltd.) It owns over 4,700,000 acres, has railways and lighters, engages in stock raising, and has an authorized capital of \$15,695,000 (U. S. gold), half of which is 'ordinary' or common, and the other half preferred. The capital was practically doubled a few years ago, previous to which it had returned as high as 24 per cent dividends on ordinary shares. It supplies nearly two-thirds of the total Argentine production of extract, operating a number of factories. Other concerns in Argentina also have large outputs, one producing 1,000 tons monthly and another 600 tons. German machinery is largely used in both Argentine and Paraguayan factories, and there is some German capital in the industry.

#### PROCESS OF MANUFACTURE—PRICES AND COMBINATIONS

"In obtaining the extract from the wood the usual method in the modern factories is to press the logs against revolving cylinders faced with many sharp, strong knives. The logs are thus reduced to fine chips, which are placed either in vats of water and boiled or in closed copper containers and subjected to steam. The resulting liquid, which

in the case of the second method is very concentrated, is cooled by being passed through pipes and then stands a sufficient time to allow the insoluble matter to settle, or else this matter is precipitated by the use of chemicals. This process also operates to decolorize the liquid. It is then evaporated until the proportion of water is either 50 or 60 per cent, when it is shipped in liquid form, or 20 or 25 per cent, when it becomes solid on cooling. About 23 per cent of the weight of the wood is represented by the extract.

"The fact that the number of companies engaged in the extract industry is comparatively small has led to combinations for the purpose of reducing production and raising prices. The first of these was effected in 1907 and resulted in the formation of a selling syndicate to market the product of most of the companies in Argentina and Paraguay. It was successful in raising prices from about 60 pesos to 70 and 75 pesos per metric ton but was dis-

solved in 1909 because of differences among the companies comprising it. Prices again fell, and by 1913 they were so low that some factories ceased operations.

#### WAR HELPS INDUSTRY

"The coming of the war, however, put the industry in South America into a flourishing condition, partly by increasing the demand and partly by eliminating the competition of German extract producers, who had been able to sell their product at a price of \$55.70 to \$58.75 (U. S. gold) per ton delivered at German ports, as compared with about \$59, which had been figured as the cost, without profits, of laying the extract down in Buenos Aires. Under the new conditions prices went skyward and in 1916 reached \$236 per ton. The natural results of this advance, however, including increased production and the use of other materials for tanning, were supplemented by certain restrictions placed on exports to Scandinavian countries, and the price dropped rapidly to less than \$100 per ton. Another combination, including six Argentine and four Paraguayan companies, was formed and a Buenos Aires firm named as representative to do all the buying and selling.

"Whether owing to this action or not, extract prices during 1917 were maintained at a good level, from \$125 to \$170 per ton. It is said that lower prices are made to Argentina buyers than to those across the sea.

#### WORKS RAPIDLY

"Conditions peculiar to the industry

make the regulation of prices more complicated than appears from results achieved by the two combinations. Quebracho is not indispensable to the tanning industry, as its place can be taken by other agents. The great demand for quebracho on the outbreak of the war was due, it is claimed, to the fact that it does its work very rapidly, producing effects in a few days which are brought about by other materials only in weeks or months. When the demand for greatly increased supplies of leather is not so imperative as it has been, these other materials may be used if quebracho prices go too high. Whether German competition will again prove a factor when peace is restored can not now be determined, but there is always that possibility. The export tax levied January 19, 1918, reduces profits, although it applies, of course, to logs as well as extract and consequently affects foreign manufacture as well as domestic. This tax is placed at 12 per cent of the excess of prices received for present shipments over normal pre-war prices, the latter being specified in the tax law. For quebracho extract this normal price is 75 pesos gold per ton and for logs 15.51 pesos gold. For February, 1918, the export tax on the extract, computed on the above basis, was placed at 7,125 pesos per ton and on logs at 14.8 centavos.

"In 1916 the total quantity of extract exported from Argentina was 97,574 tons, valued at \$18,975,000, and of logs 161,734 tons, valued at \$2,240,000. Of the extract 34,096 tons went to the United Kingdom, 24,693 tons to the United States, 13,762 tons to Russia, and 11,282 tons to Italy. The United States took the largest share of the logs,

60,519 tons; followed by Paraguay, 44,061 tons (evidently merely local shipments, perhaps to extract factories near the border); the United Kingdom, 14,216 tons; Italy, 17,669 tons; and France, 16,503 tons. In 1917 exports of extract amounted to 90,777 tons, valued at \$13,642,474, and of logs, 133,170 tons, valued at \$1,952,480."

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## COMMERCE FOLLOWS THE SOLDIER

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### France to Capitalize Her Military Prestige in Brazil

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That the military prestige gained by France in the World War may be of great use in the development of her foreign commerce is shown by information that has reached the National Foreign Trade Council.

The Brazilian Government has recently entered into a contract with the French Government for the loan of the services of General Gamelin—who is to reorganize the Brazilian Army on a modern basis. The preliminary plans call for an immediate expenditure of about \$10,000,000 for new equipment, and it is certain that French manufacturers will secure a large share of this.

The financial interests of France in Brazil have always been very large, her investments amounting to about \$850,000,000, mostly in the nature of Federal and State loans. With the establish-

ment of many branches by the *Credit Foncier de France et des Colonies* in the most important towns, her interests are now undergoing considerable expansion, and will undoubtedly prove a strong competitor for commercial supremacy in this valuable market.

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While no more allocation certificates will be received by the Textile Alliance, Inc., for the importation of dyestuffs, the War Trade Board having discontinued issuing them on January 5, this organization has announced that the time limit for placing them with the Textile Alliance has been extended to February 15.

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The Autauga Cotton Mills have been incorporated under the laws of Alabama, with a capital of \$250,000, to manufacture cotton goods. Offices and mills of the company will be in Prattville, that State, and the incorporators consist of A. F. Ledyard, F. L. Walton and C. E. Thomas.

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It has been announced by the Standard Textile Products Company, 320 Broadway, New York City, that this company has purchased the Selma Cotton Mills, of Selma, N. C., and that an expenditure of about \$500,000 to erect mill additions, install weaving machinery, build cottages and provide for public utilities is contemplated.



## ARTIFICIAL SILKS

(Concluded from page 11.)

give the same reactions as the cuprates.

In all cases of artificial silk, there is no test which gives a quick definite reaction which is unmistakable, and the reason why it is so difficult to find distinguishing reactions, is that the three classes behave differently within themselves to the same reagent.

Mechanical colorations are unreliable, as in making several tests of different samples of the same class of silk, the colors often differ very widely in intensity. Diphenylamine gives good results for detecting cellulose, but the strength of the fibers frequently varies greatly in different lots, some being capable of standing three times the treatment of others; hence chemical tests must be made with care.

One simple test which is recommended, is to pour concentrated sulphuric acid over the fibers. In the case of nitro-silk there is no coloration produced until from 40 to 60 minutes have elapsed, when the acid assumes a pale yellow tinge. With cuprate silk the acid becomes distinctly yellow at once, and the color deepens upon standing, while with viscose silks the acid turns reddish brown immediately, and develops to a rust brown in about an hour. The tests are best made with a sample of a known silk tested at the same time as the sample, a scrap of each, about the same weight, being placed in two small flasks and covered with 10 c.c. of acid. After well shaking, both flasks are placed upon a white surface and allowed to stand for an hour; if the silk is dyed it will require stripping of the color before this test would be of any value.

Some artificial silks have been found

to deteriorate in both color and strength after being dyed for some time and then stored, and as usual the dyer was held to blame. However, examination of the samples, showed the presence of a large amount of acid which was also present in the silk previous to dyeing, pointing to the conclusion that the denitration had been faulty, and that acid had formed with the lapse of time, and of course setting up tendering of the fiber. This fault occurred with nitro-silk, and it has also been found that this variety does not stand bleaching so well as cellulose silks.—*Posselt's Textile Journal*.

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## NOTES OF THE TRADE

To manufacture furs and fabrics, J. Freystadt & Sons, Inc., has been incorporated under the laws of New York with a capital of \$75,000. Headquarters will be in Manhattan, and A. G. Scheer is the principal incorporator.

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With a capital of \$200,000, the Mercantile Development Corporation has been incorporated under the laws of New York to deal in textiles. The principal incorporator mentioned is M. H. Rechell, 115 Broadway, New York City.

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The Richard Hosiery Mills have been incorporated under the laws of Pennsylvania with a capital of \$20,000 to manufacture hosiery. Headquarters will be in Philadelphia, and the principal incorporator is Bina Cohn.

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Officers were elected at the annual meeting of the Cleveland Section of the American Chemical Society as follows: Col. F. M. Dorsey, chairman of the Section; Dr. W. O. Tower, vice-chairman; W. R. Mott, secretary-treasurer; L. C. Deefahl, Hippolyte Gruenner, A. W. Smith and George Oenslager, counselors; Mr. Smith, Hugo Shapiro, W. M. Clark, R. D. Landrum and H. D. Batchelor, board of managers.



# AMERICAN DYESTUFF REPORTER

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## IN THIS ISSUE

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Present Position of Associates of Dye and Textile Industries Set Forth in Tariff Body's Newest Report

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# AMERICAN DYE STUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, February 9, 1920

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## "THE ACIDS OF PARAGRAPH 1"

How the War Has Aided, and Prohibition Foiled, America's  
Attempt to Manufacture Some Products Used in Textile Industry

At the present writing we are still waiting for the snow to melt, for the ratification of That Treaty, for something to be done about the protection of the American dye industry, for foreign exchange to recover, for the influenza epidemic to abate and for the international Button, Button, Who's Got the Button farce—with the former Kaiser cast for the part of the Button—to gravitate toward some kind of a conclusion.

There is little new in the way of developments in the dye field. Reparation shipments are said to have been begun and should be completed within two weeks of February 1, according to reports. Dye prices in this country continue firm, with bullish tendencies manifesting themselves in the case of several crudes, which are scarce; and these are affecting the industry all along the line, through intermediates to finished products.

Meanwhile, the United States Tariff

Commission has issued No. 13 of its Tariff Information Series, entitled "The Acids of Paragraph 1 and Related Materials Provided for in the Tariff Act of 1913." This pamphlet, which includes a general economic survey of the industries producing citric, oxalic, formic, lactic, gallic, boric and tartaric acids, has not as yet been given a wide distribution by the Commission, and in this connection we are informed that those desiring to obtain copies may do so by addressing the United States Tariff Commission, Washington, D. C.

It is felt that while this brochure, which was prepared by the Commission with the assistance of Dr. Grinnell Jones and Sidney D. Kirkpatrick, chemists of the Commission's technical staff, does not deal directly with the dye or textile industries as such, nevertheless the application of many of the products discussed in the latter industry should make it sufficiently interesting to most readers of the REPORTER to warrant

a brief mention being made of it here.

The pamphlet is divided into eight parts, including a summary, containing, in general, descriptions of the products discussed under each heading, information as to their uses, methods of manufacture in this and other countries, international trade, statistics on imports and exports, tariff history and rates of duty both foreign and domestic, tariff problems in connection with the movements of each, and court and treasury decisions.

In what follows, even the most cursory mention of much of the contents of the Commission's pamphlet has been omitted, the intention being rather to emphasize its relation to the textile and leather industries, than to provide a complete index and commentary upon its contents. In the case of each product, however, the Commission's summary of its findings is given, and the whole should be well calculated to enable the reader to determine whether or not he desires the additional information furnished in the report.

### THE 1913 TARIFF ACT

Paragraph 1 of the Tariff Act of 1913 reads as follows:

Acids.—Boracic acid,  $\frac{3}{4}$  cent per pound; citric acid, 5 cents per pound; formic acid,  $1\frac{1}{2}$  cents per pound; gallic acid, 6 cents per pound; lactic acid,  $1\frac{1}{2}$  cents per pound; oxalic acid,  $1\frac{1}{2}$  cents per pound; pyrogallie acid, 12 cents per pound; salicylic acid,  $2\frac{1}{2}$  cents per pound; tannic acid and tannin, 5 cents per pound; tartaric acid,  $3\frac{1}{2}$  cents per pound; all other acids and acid anhydrides not specially provided for in this section, 15 per centum ad valorem.

The following articles covered by other paragraphs of the tariff act have such close industrial relationships with the foregoing acids that they are discussed in connection with the related articles in paragraph 1:

Par. 8. Argols or crude tartar or wine lees crude or partly refined, containing not more than 90 per centum of potassium bitartrate, 5 per centum ad va-

lorem; containing more than 90 per centum of potassium bitartrate, 5 per centum ad valorem; containing more than 90 per centum of potassium bitartrate, cream of tartar, and Rochelle salts or tartrate of soda and potassa,  $2\frac{1}{2}$  cents per pound; calcium tartrate crude, 5 per centum ad valorem.

Par. 30. Extracts and decoctions of nutgalls \* \* \* not specially provided for in this section; all the foregoing not containing alcohol and not medicinal, three-eighths of 1 cent per pound.

Par. 41. Lime, citrate of, 1 cent per pound.

Par. 46. Oils, distilled and essential; orange and lemon, 10 per centum ad valorem. \* \* \*

Par. 67. Soda: \* \* \* borate of, or borax refined \* \* \* one-eighth cent per pound.

Par. 429 (free list). Borax, crude and unmanufactured, and borate of lime, soda, and other borate material, crude and unmanufactured, not otherwise provided for in this section.

Par. 532 (free list). Lemon juice, lime juice, and sour orange juice, all the foregoing containing not more than 2 per centum of alcohol.

Par. 624 (free list). Tanning material: \* \* \* nuts and nutgalls and woods used expressly for dyeing or tanning, whether or not advanced in value or condition by shredding, grinding, chipping, crushing, or any other process; and articles in a crude state used in dyeing or tanning; all the foregoing not containing alcohol and not specially provided for in this section.

The pamphlet does not include the acids on the free list in the act of 1913 or acids of coal-tar origin.

Paragraph 387 of the free list of the act of 1913 reads as follows:

Acids.—Acetic or pyroligneous, arsenic or arsenious, carbolic, chromic, fluoric, hydrofluoric, hydrochloric or muriatic, nitric, phosphoric, phthalic, prussic, silicic, sulphuric or oil of vitriol, and valerianic.

The tariff act of September 8, 1916, covers acids of coal-tar origin. These

products are discussed in reports by the Tariff Commission already submitted to Congress entitled "Census of dyes and coal-tar chemicals, 1917," and "Dyes and other coal-tar chemicals," and "Census of dyes and coal-tar chemicals, 1918."

#### BORIC ACID AND BORAX

The most important derivatives of the chemical element, boron, are boric acid and borax. One of the most important commercial uses for these products is in the tanning industry. Borax has a wide application in the soaking and cleaning of hides and dressing the leather for the subsequent processes of manufacture. It is used in the washing and bleaching of chrome leather preparatory to dyeing, and as a mordant in applying certain colors to leather. These are but a few of the many applications claimed for borax in the tannery and currying shop.

In the textile industry borax is used

in dyeing and as a means of rendering certain cloths fireproof. Borax is one of the reagents used in the chemical degumming of silk.

Boracic acid, or boric acid, as it is usually called, is made in the United States from a mineral which occurs abundantly in California. Before the war, imports were less than 5 per cent of the American production. Within the last four years a substantial export business has developed. In the report, the results of the Commission's investigation of the industry, together with detailed information pertinent to the tariff, is presented. There is also included methods and processes of manufacture, statistics for domestic production, imports and exports, and available information on domestic competition and international trade.

#### CITRIC ACID AND OTHER BY-PRODUCTS OF THE LEMON-GROWING INDUSTRY

The principal use of citric acid is in



the manufacture of beverages and effervescent salts. Citric acid and sodium citrate find some application in textile printing and in the manufacture of a few dyes, while many formulas for photographic developers and toning baths contain citric acid or sodium citrate.

In its section of the pamphlet, special reference is made to foreign and domestic sources of raw material and the tariff problem involved.

Citric acid is made from "cull" lemons, and is, therefore, a by-product of the lemon-growing industry. Although this is a large and increasing industry in the United States, only a small fraction of the American demand for citric acid is supplied from domestic sources. In Sicily a large proportion of the lemon crop is damaged by insects or other causes and must be marketed in the form of by-products rather than as fresh fruit. The cultural methods of American lemon growers are so much superior to those commonly practised in

Sicily that a much larger proportion of the American crop is salable as fresh fruit. Over 90 per cent of the citric acid consumed in the United States is derived from imported raw material. Imports are, however, mainly in the form of citrate of lime, which is an intermediate stage of the manufacture of the acid from the fruit, rather than in the form of citric acid itself. This is due, at least in part, to the higher tariff on citric acid than on citrate of lime.

#### FORMIC ACID

Formic acid is a useful material in the dyeing and tanning industries, but other competing acids have, as a rule, been cheaper and the use of formic acid has therefore been restricted to a few cases for which it has peculiar advantages. The textile industry can use formic acid for many purposes. In the dyeing of cotton and wool mixtures in an acid bath it is said to be superior to sulphuric acid because it is less injurious to cotton than the latter. It is also used as a mordanting assistant in dyeing wool with a chrome mordant, for which purpose it competes with tartaric, oxalic and lactic acids. It may replace acetic acid for many purposes in the textile mill whenever the price will justify it.

In the Tariff Commission's mention of formic acid in its report, treatment similar to that accorded boric and citric acids is given this product, with particular attention to its peculiar tariff problem.

Formic acid was controlled by the German industry before the war not through lack of essential raw materials in other nations, but, somewhat as in the case of the dye industry, because German chemists had discovered and developed the best known method of making sodium formate, which serves as the basis for making formic acid. Compressed carbon-monoxide gas is absorbed in hot caustic soda, yielding sodium formate. During the war, the complete process of making this acid from caustic soda and coke was developed in the United States. The Ger-

mans had an advantage in technical experience and commercial connections which would have made it difficult for any American manufacturer to make a successful start in this industry if competition from Germany had not ceased. During the war several American firms began its manufacture.

#### THE GALLIC, PYROGALLIC, AND TANNIC ACIDS INDUSTRY

The physiological tannins, which occur naturally in the wood, bark, leaves, fruits and seed pods of many plants, when soaked in water yield extracts which find extensive use in tanning. The extracts contain in addition to the tannin many other substances, including coloring matters, resins and carbohydrates from which the tannin can be separated only with great difficulty. These non-tannin substances, however, do little or no harm, and in some cases may even be advantageous, and ordinarily no attempt is made to prepare a pure tannin from these extracts. The crude extracts used for dyeing and tanning are not discussed in detail in the report of the Commission. Lesser uses of tannic acid are in the manufacture of some color lakes, and as raw material for the manufacture of gallic acid and pyrogalllic acid. The latter is the oldest of the photographic developers, and is probably the most used. Pyrogallol itself and several products made therefrom are used in medicine, as well as

for the dyeing of fur and hair and the staining of wood.

The pathological tannins are formed on plants following the sting and deposition of eggs by insects, which cause pathological growths known variously as galls, gallnuts or nutgalls.

Tannic acid and tannin, gallic acid and pyrogalllic acid are all made from nutgalls, which are not produced in the United States in commercial quantities. Supplies of nutgalls come chiefly from China and Asia Minor. Imports of tannic acid have never been more than about 6 per cent of the American production, and these imports have come almost entirely from Germany. The production of gallic acid increased greatly during the war on account of its use in the manufacture of a blue dye for wool which has been used in navy uniforms. Pyrogalllic acid, being made from gallic acid, is, therefore, dependent on imported nutgalls; imports of pyrogalllic acid have been larger in proportion to the domestic consumption than for either tannic acid or gallic acid.

#### THE LACTIC ACID INDUSTRY

Aside from numerous other important uses, lactic acid is used in the dyeing of textiles and leather, especially in the chrome mordanting of wool and as a substitute for acetic acid in dyeing and printing. It has the advantage of being much less volatile than acetic acid,

*(Continued on page 12.)*

**AMERICAN DYESTUFF REPORTER**

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**INTO THE ARENA AGAIN**

If all goes well, the great war may soon be over. After a vast deal of additional coaching and signal practice, and with the Treaty tucked snugly under his arm, Senator Henry Cabot Lodge plans to-day to begin his great ninety-yard run which is to carry him, if his interference holds out, clear past the "bitter enders" and the Administration group alike and over the line for a touchdown.

Two or three weeks will suffice, it is hoped by the chairman of the Foreign Relations Committee, to batter down what yet remains of opposition to his modified program. The mild reservationists have promised to uphold him in his endeavor to have the much fingered document referred immediately to the committee for changes which have been in the course of preparation. This will serve to unscramble the amazing legal mess which has obtained since November 19.

The country is plumb tired of the whole business and in general there seems to be a tendency among the politicians to pray that the Treaty may be gotten safely out of the way long before it has a chance to become an issue in the approaching campaign. Vain hope! Should it be ratified to-morrow, the remembrance of last year's work would yet extend long past the time when the next President shall have grown accustomed to the contours of the official chair.

But no matter what motives may be actuating our Senators, the platform of the business world remains, as always,

steadfastly and uncompromisingly ACTION!—without the crossing of its "t" or the dotting of its "i."

**THE CHEMICAL FOUNDATION'S PATENTS**

There was a time when this publication, along with some others, fretted and fumed a bit because of the mistaken notion that the Senate's dallying with the Peace Treaty might postpone eventualities in the case of the Longworth bill and similar important legislation. But all this might well have been spared; the Treaty might as well have been ratified the day it was brought hither from Versailles so far as proving an obstacle was concerned.

After more than a year it remains undisposed of, and after some nine months the dye bill has progressed only as far as the Senate Finance Committee. In spite of this, there is at least one bit of legislation which concerns the welfare of the dye industry which has been carried forward with neatness and dispatch, and which does not depend upon action on the Treaty for its effective operation.

This is the portion of the Trading with the Enemy Act which establishes the validity of the title to the 4,500 German patents held by the Chemical Foundation. How it was brought about was recently described in an interesting letter to the press by Ramsey Houget, counsel for the Chemical Foundation, replying to questions put by Thomas C. Dawson, of the Electric Boat Company.

Without going into detail, it may be said that the letter effectively clears up any doubts which might be entertained as to the invulnerability of the Chemical Foundation's position as owner of the patents. Briefly, Section 7(c) of the Act gave Mr. Palmer, as Alien Property Custodian, the right to seize each patent immediately upon the establishment of enemy ownership, and under the same section the simple action on his part of filing notice of such seizure with all persons known to be connected with





each of the patents, constituted automatically a conveyance of title to Mr. Palmer. The subsequent sale to the Chemical Foundation was duly authorized by executive order, which gave him power to assign the patent, trade-mark and copyright property this seized to a purchaser on terms designated by him. Section 12 of the Act specifically limits any claim to any property sold to the proceeds of the sale, thereby preventing recovery of the patents themselves in the event of suit.

With regard to the Treaty, Mr. Houget says:

"As to the operation of the Peace Treaty, the Peace Treaty is unnecessary to validate the title of the Chemical Foundation since, as I have pointed out above, this title is a valid title. It simply ratifies and confirms the title of the Chemical Foundation and cuts off any possible suits. Article 297 of the Treaty ratifies every action taken by the Alien Property Custodian, and Annex 15 of this article makes it apply specifically to patents and similar property. This article particularly mentions the ratification of sales of enemy property under war legislation."

We are well aware that the case of the dye patents and the case of the Longworth bill are quite different affairs, and that the methods applied to the former could not be used to assure the industry the protection to which it is entitled. Nevertheless it is extremely refreshing to contemplate the clean-cut, businesslike manner in the patent question was disposed of, and to note the comforting assurances regarding a point of incalculable importance to the industry.

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The Otis Company, Ware, Mass., manufacturer of ribbed underwear, woven goods, etc., has completed arrangements for the construction of two new additions to its Palmer Mill at Three Rivers, Mass. The proposed structure will be equipped as a weaving department and machine shop. A. W. Warriner is superintendent of the Three Rivers works.

## "THE ACIDS OF PARAGRAPH 1"

(Continued from page 9.)

and therefore is less liable to be lost in operations involving steaming or boiling. The antimony salt of lactic acid is a competitor of tartar emetic in dyeing, and titanium lactate is used in making leather. The technical grades of lactic acid are used chiefly in tanning and dyeing.

In the Commission's report, lactic acid has been given notice similar to those mentioned before, with particular reference to new commercial developments and the tariff considerations involved.

Lactic acid was first manufactured on a commercial scale in the United States, and its chief uses were developed in the American industries. It is obtained by a fermentation process which can utilize any one of several waste products available in the United States. The technical grade of the acid, used largely by the tanning industry is produced in amounts sufficient to satisfy domestic requirements. Recent commercial developments point to an increased production of an edible grade of lactic acid, which will probably prove a serious competitor of citric and tartaric acids.

## THE OXALIC ACID INDUSTRY

This product has important uses in the dyeing and printing of textiles, especially in dyeing wool on a chrome mordant, and in the manufacture of some dyes. Straw articles, especially straw hats, are bleached with oxalic acid, and it is also used to some extent for the bleaching of leathers, wood and cork, shellac, and as an ingredient in metal polishes. A blue ink is made by dissolving Prussian Blue in oxalic acid.

All available information pertaining to the tariff on this product has been summarized on the Commission's report.

Oxalic acid is made in the United States by two different processes, but the industry had severe German competition before the war, with imports several times as large as the American

production. The process in use by the only American manufacturer before the war depends on heating sawdust with caustic potash, which had to be imported from Germany or made in the United States from German muriate of potash. The Germans had invented and put into successful operation a better process, which is closely allied to the manufacture of formic acid referred to above. The first step in the manufacture of oxalic acid by this method is to make sodium formate, which is the basis for making both formic and oxalic acids. A promising beginning has been made during the war by the United States in the manufacture of oxalic acid by this process from locally available raw materials—caustic soda, coke, sulphuric acid and lime.

#### THE TARTARIC ACID AND CREAM OF TARTAR INDUSTRY

Among other things, cream of tartar, crude tartar and tartaric acid are used as mordanting assistants for dyeing wool with a chrome mordant and in printing textiles, while tartrates also find some use in photographic developing and printing. Aside from its use in medicine, tartar emetic is used in the dyeing of textiles, usually in connection with the tannin; in this connection it serves to deposit antimony on the fiber as a mordant.

This industry, like the citric acid and the gallic, pyrogallic and tannic acids industries, depends upon imported raw materials. Detailed information bearing upon this and other factors of tariff significance is presented in the Commission's report.

There is even less prospect for the development of American supplies of fundamental raw materials for this industry than in the case of the citric acid industry. Tartaric acid, and the closely related cream of tartar, are made from wine lees and argols, or crude calcium tartrate, which are by-products of the wine industry. The American wine industry furnished about 1 per cent of the world's supply of argols, but even this supply will be cut off, now that the

manufacture of wine in the United States has been stopped, as required by the prohibition amendment to the Constitution. A small amount will be obtained from the grapejuice industry, but this country must import either argols or wine lees, or refined tartaric acid and cream of tartar. In the past, tariff rates have been so adjusted as to encourage the importation of the crude materials, which are refined in the United States.

#### SALICYLIC ACID

This is no longer dutiable under Paragraph 1 of the Act of 1913, but dutiable under the Tariff Act of September 8, 1916, which imposes a duty of  $2\frac{1}{2}$  cents per pound and 15 per cent ad valorem. The latter act deals with chemicals of coal tar origin and specifically repeals the provision for salicylic acid in the 1913 measure. Salicylic acid is not discussed in detail in the pamphlet, since it is referred to in earlier reports of the



Commission dealing with chemicals of coal-tar origin.

There are many acids which, if imported, would be dutiable under the provision for "all other acids and acid anhydrides not specially provided for in this section, 15 per centum ad valorem." The acids not specially provided for which are actually imported in the largest amounts are oleic acid, stearic acid and barbituric acid.

#### OLEIC ACID

This is made from vegetable oils, especially cottonseed oil, and is used in the textile industry in the dyeing and finishing of fabrics, in the manufacture of soap, and in the manufacture of cosmetics, especially cold creams. Imports during the fiscal year ending June 30, 1914, amounted to 234,756 pounds, valued at \$17,347. This is approximately 1 per cent of the production of the United States.

#### STEARIC ACID

This product is made from beef tallow and other fats and is used chiefly in the manufacture of candles. Imports during the year ending June 30, 1914, were 100,000 pounds, which is less than 1 per cent of the American production.

#### BARBITURIC ACID

This is a synthetic product which is used in the manufacture of certain

drugs. Imports of it during the fiscal year ending June 30, 1914, amounted to 39,924 pounds, valued at \$2,837, and came entirely from Germany.

### THE NATURAL INDIGO INDUSTRY

The use of natural indigo, derived from the indigo plant, goes back to remote times. It has been found in the garments of the Egyptian mummies, it has been mentioned by Greek writers and Marco Polo when he visited India in the thirteenth century.

When it was first brought to Europe, about the time of Queen Elizabeth, it was only used in addition to woad to brighten and improve the color of the latter, but it was soon found to be far superior and rapidly began to supplant it. Woad growing was, at that time, a rich and powerful industry in Germany, France, Italy and England, and the woad growers of these countries naturally viewed with alarm the ruin of their industry, and were able to bring such pressure to bear on their governments that the use of indigo was prohibited; in some countries on the pain of death. In spite, however, of all this, indigo gradually superseded the old established woad dye, and by the middle of the eighteenth century the prohibition of the use of indigo has been removed in all the countries of Europe.

Indigo was first grown in Western India; it was there that Marco Polo found it growing, and was exported from Surat direct to Europe, and chiefly used in Holland, where the principal

dyers of the time lived. The English colonists in America and the West Indies, seeing how flourishing the trade was, then started to grow and manufacture the dye, and the improvements they effected were so great that the Indian industry was practically killed. However, it was only killed for a time. Towards the end of the eighteenth century the directors of the Honorable East India Company took steps to restart the industry in India, and European indigo planters were brought from the West Indies and given grants of land in Bengal. The industry was financed and fostered by the East India Company from 1780 to 1802, with the result that India was once more made the foremost indigo growing country of the world, a position it has ever since held.

In 1782 the total import of indigo into England was 495,000 pounds, of which Asia, including India, only sent 25,000 pounds, while in 1795 the imports had risen to 4,368,000 pounds, of which India alone supplied no less than 2,955,000 pounds, so that in thirteen years the East India Company by its policy had entirely restored the industry to India. At this time Bengal was the principal indigo growing district in India, and continued to be so until the middle of last century, but about that time the cultivation in Bengal began to decline, and to increase in Behar, which, for the last fifty years, has produced the largest quantity of indigo.

Although up till then most of the indigo had come from Bengal, indigo factories had been known in Behar as far back as the eighteenth century. Contai was built in 1778 and Singhia in 1791, and many others only a few years later. The first European planter in Behar is said to have been Monsieur Grand, the first husband of the lady who was afterwards Princess Talleyrand, who, with the 50,000 francs damages he received from Sir Philip Francis in the celebrated case,

went to Behar and started indigo planting.

Up till 1897 natural indigo held its own as the only method of obtaining the dye, a dye which is not only used for blue but as a foundation for other colors, but in that year the Badische Anilin and Soda Fabrik of Ludwigs-hafen began putting synthetic indigo on the market, and the price and also the acreage of natural indigo steadily declined. When synthetic indigo first made its appearance, the area under indigo in India was over 1,500,000 acres, the indigo produced being over 8,000 tons, while in 1914, when war broke out, this had fallen to only 150,000 acres.

As regards the area under indigo, in 1895 1,688,042 acres were devoted to this crop; in 1914, before the war, the area had shrunk to less than 150,000 acres.

In 1880 India contained 2,800 indigo factories and 6,000 small works employing primitive methods of ex-

traction, the total number of persons employed, exclusive of agricultural laborers, being 360,000. In 1911 only 121 factories remained (112 being worked by steam power), and the total number of workers had fallen to 30,795.

But when the war broke out in 1914 the supplies of synthetic indigo from Germany were immediately more or less completely cut off, and a serious shortage of indigo was felt. This naturally gave a stimulus to the Indian indigo fields, and the total area under indigo in India was increased three and one-half times in 1916-17, as compared with the preceding five years, but the total acreage, 756,400, was still less than half that occupied by this crop in 1895 (1,688,042 acres).

The greatest increase, both relative and absolute, occurred in Madras Presidency and in the United Provinces, where the industry is mainly in the hands of small holders, and the dye is manufactured with simpler and less costly machinery, but is generally of far lower quality (40 to 50 per cent indigotin) than the Behar make (60 to 70 per cent). In Behar, where the manufacture is carried on by large concerns, many of the factories and the machinery had fallen into a bad state of repair, and considerable outlay was necessary before extending operations. For this capital was often lacking, owing to the leanness of the recent bad years.

There was, too, a considerable shortage of qualified European supervision, owing to the fact that a large number of planters at the outbreak of war patriotically volunteered for service. On these accounts, and be-

cause of special difficulties, the extension of cultivation was not so great in Behar as in other provinces, and the increase of area in 1916-17 was only about 33 per cent as compared with 1915-16, and there is an actual falling-off of 3 per cent as compared with the average of the five years preceding 1915.

The rapid capture of the Chinese market by synthetic indigo a few years before the war is seen from the fact that in 1906, when Germany exported indigo of a total value of 31.6 million marks, Japan was the principal consumer with 6.9 million marks, while China imported only the value of 5.3 million marks. In 1913, of the German export of the total value of 53 millions of marks. China consumed indigo of the value of 21.25 millions and Japan 4.1 millions. In the past the Chinese and Japanese markets consumed very little Indian Indigo, and satisfied their needs with home-made indigo (water or liquid indigo) of a very inferior quality.

The Germans apparently soon realized the importance of this enormous market, which far exceeds that of all other countries put together, and, either by meeting the special requirements of these countries as to the form of the product they supplied, or by convincing them of the superiority of greater cheapness of the synthetic article, almost completely captured the trade in indigo in China and Japan. It is of importance in this connection to note that even in India considerable quantities of synthetic indigo were being used before the war.

It is very clear from these data



that the prosperity of the Indian industry and its ability to compete with synthetic in the future will depend largely upon its being able to supply the Eastern markets. The British and American consumption is small by comparison.

The opinion was lately expressed by Dr. G. T. Morgan that "the great increase of the output of natural dye since the war can only be regarded as a temporary spurt. The synthetic dye is now too well established to be displaced." Apparently from the past history of natural indigo this was a safe conclusion. During the past eighteen months, however, there has been considerable evidence to show that, provided certain improvements in actual practice can be effected—they are clearly possible—the natural indigo will be able to put up an interesting fight with the synthetic dye.

—*Fibre & Fabric*.

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### "COAL TO DYESTUFF"

As may be noted elsewhere in this issue, the Newport Chemical Works, Inc., announces that all advertising matter appearing in connection with Newport colors will in future bear the above slogan. It is an extremely simple phrase, quickly remembered or forgotten according to the mental equipment of the reader, and to the layman it means little or nothing. But to the producer or consumer of synthetic dyestuffs, or to anyone possessing even the most superficial knowledge of the coal-

tar chemical industries, it conveys a message of such import as to compel instant attention.

For the Newport organization, aside from its brilliant staff of research chemists and its highly trained operatives, stands unique in the respect that it is the only manufacturer of dyestuffs in America which owns and controls every step in production from the time the coal leaves the mine until the finished product is shipped. Just what this means from the standpoint of efficiency, the elimination of waste and the standardization of yields can more easily be appreciated by a consideration of the story of a Newport color.

Imagine, for the sake of illustration, a single ton of coal—underneath the ground. This coal was owned by the Newport organization long before it ever saw the light of day. In the course of time it is mined by Newport miners and conveyed to Newport by-product coke ovens, where it is submitted to destructive distillation. Newport tar stillers then extract the crudes from the Newport coal tar remaining among the by-products, and from these, in turn, are developed Newport intermediates. This is the point at which most manufacturers of coal-tar dyes begin operations, but in the case of this organization the manufacture of the finished colors themselves is but the last link in the chain of which every piece was forged by the Newport technical staff and its operatives. From start to finish the entire series of steps has been made

under a single control and a single ownership.

Thus it may easily be seen that one of the most common causes of unsatisfactory products—a lack of uniformity of materials—is effectually done away with at one stroke. Moreover, it compels a jealous adherence to fixed standards, for there is no chance to shift the responsibility, or to plead the expiration of existing contracts and the consequent changing of sources of supply of crudes or intermediates. To the consumer of colors it means that the Newport organization *must* stand squarely behind every Newport product, and it fully explains why Newport colors are standard.

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### COLOR CARDISTS REPORT GAIN IN SCOPE

The Textile Color Card Association held its regular meeting last week at the rooms of the Silk Association of America. President Bode traced the growth of this idea, especially during the latter months, and reported that the demand for standard color cards has increased so that the fall, 1919, and the spring, 1920, card has been sold up and orders now being received must be filled with the pocket edition.

The adoption of the color card by a number of schools and colleges that have textile courses was reviewed, as well as the growing practice of trade organizations to adopt it for their members. Considerable progress was reported from foreign countries where the sale of these cards is showing a steady increase.

The secretary and the treasurer gave their annual reports and the old officers were re-elected for the coming year.

### NEWPORT ANNOUNCES DIRECT VIOLET N

The Newport Chemical Works, Inc., announces the addition of Direct Violet N to the firm's already noted line of direct colors.

Direct Violet N is identical in every way to its pre-war prototype, Diamine Violet N, being a pure bluish violet of good fastness to washing and particularly distinguished for its excellent fastness to light.

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### NOTES OF THE TRADE

Irene du Pont was recently elected a director of the Guaranty Trust Company, New York.

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Under the laws of New Jersey, James H. Farrar, Inc., has been incorporated to manufacture silk and other textile fabrics. The capital of the new company is \$200,000.

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With a capital of \$1,000,000, the Chartered Chemical Works, Inc., has been incorporated under the laws of Delaware to conduct and carry on a general chemical manufacturing business. Headquarters of the new company will be in Dover.

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Tom Taylor, who has for many years been in charge of dyeing at the Newnan Cotton Mills, Newnan, Ga., has become connected with the Newport Chemical Works, Inc., and will represent this concern in Southern territory.

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To deal in textiles, Walsh Brothers, Inc., has been incorporated under the laws of New York with a capital of \$100,000. Headquarters will be in Manhattan, and the principal incorporator is M. J. Walsh, 604 West 112th Street, New York City.

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According to a recent report of the Japanese Government, the average daily wage of a male cotton spinner in Yakkaichi during the first six months of 1918 was 42 cents, the employer supplying the worker with dinner.



# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 7

Feb. 16, 1920



THIS IS THE  
FEBRUARY EXPORT NUMBER

## The Committee Reports

Favorable Recommendation  
on Longworth Bill Expected  
to Be Accepted by the Senate

## Consumers Demand Action on Protective Legislation

## "German Dyestuffs"

The Story of a Recent Ad-  
vertisement





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, February 16, 1920

No. 7

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## THE COMMITTEE REPORTS

Speed in the Enactment of the  
Longworth Bill, with Last-Minute  
Modifications, Confidently Awaited

**W**HETHER or not the United States Senate will take action on the Longworth bill by the time this issue of the REPORTER is in the hands of its readers is a matter which cannot, at the present writing, be determined. In the light of past experience and present indications, it seems hardly likely. But the fact remains that at last—at last!—the bill is out of committee and actually up for consideration by the body which will, once and for all, settle its fate and the fate of the American dye industry.

We say "the fate of the American dye industry." Perhaps this may be a trifle extravagant. If adverse action is taken and the measure is killed, all hope need not necessarily be abandoned. The dye makers could, and probably would, prepare another bill designed to secure for the industry the benefits which are its right and which the Longworth bill now provides without offense to consumer or exporter. Yet it does appear that if the present draft of the bill cannot

meet with approval at the hands of our Senators with but the most trivial changes, nothing with "teeth" enough to safeguard the industry would have a ghost of a show.

Now that the great issue is finally to be tried out in the Senatorial court, it seems almost difficult to grasp the fact in its entirety. The months of endless and in many cases apparently needless discussion which have dragged their weary length over the past thousand years or so, while both producer and consumer have been on tenterhooks, have taken a fearful toll from the dye industry in research work undone and capital uninvested. There can be no doubt but that the aeons of "hearings" and backing and filling have really handicapped the industry during a critical period when every effort should have been bent upon gaining as much ground as possible. But "all's well that ends well," and if at last the Senate sees fit to dispose of this matter without further delay things might have been far, far worse.

Irrespective of whether or not speed is obtained, the action, when it comes, is quite likely to be favorable. The big news "broke" late last Tuesday, when word came that the Senate Finance Committee had reported the bill upon the floor of the Senate, and had reported it favorably with but few changes. As the bill stands, it satisfactorily fulfills the requirements of dye manufacturer, dye consumer and dye importer, which it was designed to meet. It is thought—as much because of the prolonged discussion which it has been through as anything—that the decision of the sub-committee of the Finance Committee will be accepted by the Senate as a whole with little argument. It should be so accepted.

A feature of the recommendation which is probably unique is the addition to the bill of a section (518) setting forth the intent of the Congress in enacting it. The section reads as follows:

"Section 518. That it is hereby expressly declared to be the intent of the Congress in enacting this act to build up, develop and protect the dyestuffs manufacturing industry in the United States and its possessions, and that each and every one of the foregoing sections shall be so construed as to effectuate such intent."

This addition is regarded as being most important. Aside from indicating clearly that our legislators are undoubtedly desirous of preserving the dye industry for our own, it is probably the first time that such an interpretive clause has ever been appended to a tariff measure. In the ordinary course of events Congress has been content to make a law of this kind and leave the interpretation of it strictly up to the courts, washing its official hands of any further responsibility once the law is passed. But in the present instance it has not only been seen fit to define unmistakably where the country stands on the question of the preservation of the dye industry, but to so place our Sologs on record as to leave no choice

as to future interpretations of moot points.

Substantially, the measure as favorably reported by the Finance Committee varies but little from the changed measure given in detail in the REPORTER recently. Licensing, now as then, will play no part in the protection of the industry, but for all purposes the new measure will safeguard the industry quite as effectually.

Under the proposed law the user of dyes may import a six months' supply of dyes of any sort which cannot be produced in the United States at the time of such importation, price, quality and delivery being taken into account. If the Tariff Commission, which is to administer the law, should discover that any intending importer can get the dyes which he proposes to bring into the country, it is empowered to issue an order denying entry of the dyes.

Among other last-minute changes to the new measure to be noted are those which withdraw the originally proposed 40 per cent ad valorem duty on the articles listed under Group II and substitute a 15 per cent ad valorem duty; for the articles listed under Group III a 30 per cent ad valorem duty has been substituted for the original 45 per cent duty.

The proposed appropriation for the administration of the law has been changed from \$250,000 to \$100,000—which, perhaps, should suffice, even in these days.

The period for which the law will protect the dye industry has been shortened from five years to three years. In this case, however, it is thought to be not beyond the bounds of possibility that the Senate, when it comes to discuss the measure, may lengthen this period.

With but a few additional alterations of the most minor nature, the proposed measure now stands as amended above. Just what its chances may be are for the events of the next few weeks to determine. If the Senate approves, the battle may



be declared won, for all that will remain will be for the Senate and the House (which passed a much more stringent bill) to approve the measure sitting as a committee of the whole, and for the President, who favors it, to affix his signature.

In view of the good news of last week, then, we reprint a line or two from a market report which appeared in the daily press on January 14. The pertinent portion of the language of the report runs thus:

"There are some in the market who, on the strength of the hearing on the Longworth licensing bill, held at Washington several days ago, regard that measure as 'practically dead.' In their opinion it is about time for the American dye and textile manufacturers and the dye importers to get together and frame a measure which, when enacted, would adequately protect both the American dye industry, American dye consumers and the importers. They think

it is about time for the sides to the controversy now in progress to desist from hammering each other and get down to a measure which is not entirely one-sided. An interesting report of the hearing referred to above appeared in yesterday's issue. Of particular interest was the suggestion made by one opponent of the Longworth bill and proposed substitutes, that both sides agree on a plan that would retain the principle of the embargo but with the authority placed with the Tariff Commission, to be applied whenever it should appear that an importation would be a menace to the American dye industry. Trade would be allowed to proceed on normal lines, but as soon as any importer, consumer, the Dyes Institute or any other interest should see coming into the country any quantity of dyes menacing the industry, complaints could be made to the Tariff Commission and action taken. The Tariff Commission would at all times be in-

*(Concluded on page 12.)*

**AMERICAN DYESTUFF REPORTER**

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Pointed solely toward the welfare and growth of the American Dyestuff Industry. Unbiased contributions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

## CONSUMERS DEMAND ACTION ON PROTECTIVE LEGIS- LATION

Quite frequently the REPORTER hears from American consumers of dyestuffs words of encouragement to those who have been laboring the past year for adequate protective legislation on the part of Congress. It is refreshing to find that our neighbors across the border, or at any rate some of them, feel as keenly interested in the matter as do we ourselves.

The REPORTER was recently in receipt of the following letter which we feel ought to interest our readers; we also take some personal pride in printing it as it refers in such a complimentary manner to our own efforts in behalf of the industry:

"AMERICAN DYESTUFF REPORTER,  
 "New York, N. Y.

"Gentlemen.—We have your last issue of the REPORTER and note with interest your expressions regarding the dyestuff situation. I imagine that in the minds of many it is a question, if not an impossibility, to determine what supposition the committee can be working under to delay action as they have been doing. It is too bad that a few more of our textile publishers do not bring pressure to bear. Even if they used about one-tenth of the energy and time that you devote to the situation, perhaps more would be accomplished. You may rest assured, however, that your work is being appreciated by hundreds of

Americans even if they do not write you.

"Yours truly,

"THE BROWN & WIGLE CO., LTD.,

"Per G. E. Templeton,

"Kingsville, Ont., Canada."

We replied to Mr. Templeton's letter with an expression of thanks for his interest and a request that he permit us to print his letter. In reply we received the following:

"Gentlemen.—If my letter, or the enclosed, is of any value, please use same or any part of either any way you deem best.

"I have aired my feelings somewhat, but am sure many others feel the same, and if the 'ire' or a few of the millmen themselves can be aroused, along with that of the other textile publications, you then will have accomplished something that will bring you undying fame.

"Yours truly,

"G. E. TEMPLETON."

The enclosure of which Mr. Templeton speaks and which we print in full is as follows:

### 100 PER CENT AMERICANS

When one stops to consider the vast amount of money, men and materials spent, used and wasted in defeating an unscrupulous foe, the attitude of Congress in passing (?) a protective measure for the dyestuff industry becomes ridiculous in the extreme.

Why any member of Congress should hesitate in passing a bill that would eliminate any possibility of the importation of German dyes into the United States is beyond the grasp of the 100 per cent American.

As for the so-called cry for German dyes—undoubtedly to a great extent by pro-Germans cloaked in the guise of Americans—all we can say is: We have got along very nicely without them, and should continue to do so, until such time as our own dyemakers can produce the few types we are still in need of.

along with the vat dyes, in larger quantities and in a wider variety.

Every dyer or chemist who has anything to do with the use of dyes in whatever plant he may be, should by every available means at his command, endeavor to produce for the trade colors or shades purely from American-made dyestuffs. Satisfactory shades are now produced in a very wide and pleasing variety, and shades of nearly every known pre-war hue can be produced from our own products. This is a fact in reality. Doubting Thomases availing themselves of the opportunity offered by leading dyestuff manufacturers have only to submit their troubles to anyone of the several firms and their doubts can be cast aside.

From the viewpoint of a "100 per cent American," there should be *no argument* in favor of the importation of German dyes.

Is there a mill, manned by "100 per cent Americans," which is desirous of seeing the return of the old trade conditions which existed in the industry prior to the war with the German monopoly, propaganda and graft? Those desiring a return to conditions so detestable put themselves in a group "all their own" and away from the pale of "100 per cent Americans."

Are those of us who do not wish to be classed with this group to content ourselves with the lackadaisical manner in which Congress is dealing with the situation? The REPORTER has worked diligently and untiringly in its effort to bring before the public and Congress the facts as they present themselves to all of us who desire to see our country free from the yoke of Germany in so far as the growth and protection of the industry goes. But what about our textile publications? With all due respect to them, it seems to us as if they, too, were lagging in the same manner as Congress. What we want is action—concerted action. Such action can only be brought about by publicity, and publicity by the concerted action of all the textile publications of the United States in one big and continued

effort to bring the light of day to Congress before it is *too late*. Such publicity as the several textile papers could give to the question would be of inestimable value and help to an industry that is deserving of all the backing which we can give it.

This publicity would in time reach our great daily papers, thus creating comment by the public, in their homes, and finally the pressure thus gained would automatically be brought to bear upon Congress to the dismay of the pro-German, to the glorification of the "100 per cent American," and, finally, to the permanent establishment of our new dyestuffs industry.

G. E. TEMPLETON,  
Brown & Wigle Co., Ltd.,  
Kingsville, Canada.

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Under a recent agreement whereby the General Chemical entered into a contract with the J. G. White Engineering Corporation, the former will enlarge its plant.







**THE COMMITTEE REPORTS***(Concluded from page 7.)*

formed of importations, and could require a bond from all importers to be proceeded against in the event of a violation of the proposed law. This suggestion received the nearly unanimous approval of those present."

So far as the licensing feature of the Longworth bill was concerned, the bill was undoubtedly as dead as the Dead Sea. The balance of the article shows clearly what the trend at that time was, and expectations seem to be in a fair way of being realized.

In the event that the measure does not come up for consideration before to-day it will be unfortunate, for the Treaty will then be back on deck and will likely take precedence over any other piece of legislation. But with the end in sight, a week or two longer can add but little to the harm already done.

### **CAMPBELL TO FEATURE "CAMEL" TRADE-MARK**

The Camel Dyes trade-mark used by John Campbell & Co. has been registered in the United States Patent Office. The company plans to feature this trade-mark extensively in all advertising and printed matter, as well as in the packing of its goods for shipment.

The trade-mark features the illustration of a camel with a native seated beside it.

The Hawthorne (N. J.) Hosiery Company has been incorporated with a capital of \$250,000.

### **THE GERMAN SITUATION AS SEEN BY AN AMERICAN BUSINESS MAN**

Germany will not be able for a long time to make herself felt as a competitor in knit goods, according to a person prominently identified with a Philadelphia textile mill who recently returned from Berlin and Chemnitz, in each of which cities he spent some time on business. The rate of exchange places her at a disadvantage in buying raw material, and there is a labor condition that militates against a return to industrial normality. Although a work-day is of eight hours—four hours on Saturday—there appears to be lacking ambition to do all that might be done. Perhaps this might be ascribed to the fact that the people of Germany are barely half fed. They are rationed as to meat and a number of foodstuffs, and must pay high prices for the little that they are permitted to buy. But that Germany will get on her feet by means of the bartering with border countries that is going on, eliminating the use of money, is the opinion of the returned business man.

In Holland, this person says, warehouses are so filled with American cotton that it would be difficult to find room for more. It is suspected that much of this cotton is intended for German manufacture on the barter basis, and that by easy stages there will be restored normal activity in the textile mills. During this person's stay in Germany several business men were there completing negotiations for the shipment of raw materials into the industrial centers



to be worked into finished products and shipped for the markets of the United States. By shrewd manipulation of exchange, it is stated, this can be made profitable, and the suggestion was ventured that this yarn will come back, landed on American docks, at prices lower than those which prevail in domestic yarn markets. It is pointed out that England would not be averse to supplying Germany with yarn to be made into knit goods—not for English markets, but for export to her colonies and transatlantic countries. French business men are said to have been in Germany the day after the armistice was signed, ready to transact business with German exporters and importers, and Englishmen followed soon after.

It is strongly intimated that the buyers for two of the leading wholesale dry goods houses of the Central West who a month or six weeks ago were in Germany to buy hosiery, for distribution in this country (they are quoted as saying), went prepared to finance German manufacturers of hosiery; in other words, supplying either yarn or cotton. It is by only some such method, it is said, that knit goods made in Germany can be obtained for the markets of this country. Germany enjoys an advantage in her lower wage rates; a machine fixer, for illustration, being paid four marks per hour.

Germany is conserving what remains of her wealth. An alien enter-

ing that country is not permitted to take out more money than he brought in. He is halted at the border and required to hand over to an official all of his funds except so much as will be needed for completion of the journey, says the returned business man. He is given a receipt for the sum of his deposit with the Government official, and upon arrival at the city of destination he may draw against it.

American money converted into marks, it is stated, will buy more of most commodities in Germany than could be purchased in England with the same amount converted into sterling. At the best hotels the rate is from 38 to 40 marks per day for a room in Berlin and 28 marks in Chemnitz. A breakfast such as may be had in Berlin for about 10 marks would cost \$2 in Philadelphia, said the textile man, who is a frequenter of the fashionable clubs. For a five-course luncheon he paid 20 marks, but the cigarettes accompanying cost him the equivalent of 10 cents apiece in American money, and no one is permitted to buy more than two at any meal. A pair of ladies' full-fashioned silk stockings costs 30 marks.

Germany is so short of coal that the operation of the railroads must be conducted on the most economical basis possible. Very few trains are run, and these are not ample for the accommodation of travelers. Such a thing as a Pullman is unheard of. The textile man stood nine hours dur-

ing a journey of twenty-three hours.

Visitors to Germany are permitted to live more luxuriously in the matter of food than are the residents, who still can obtain bread and meat only on presentation of tickets purchased from the food controller. There may be a reason for making life attractive to visitors, particularly those who enter the country on business missions. Of the United States business men in Berlin during the stay of the Philadelphian, those from the South were conspicuous for numbers, and it was the belief that arrangements were being made whereby German mills would be supplied with cotton to be spun into yarn, the process to be paid for in cotton. It is understood here that several American consumers of woolen and worsted yarns have had very flattering offers from Germany for the spinning of the yarn in exchange for wool and tops. Dolls and toys have been bought in Germany for a Philadelphia department store, it is stated by the returned business man, and it is his impression, and of others who recently have visited Germany on a business errand, that textile products are certain to follow. But there is nothing encouraging for Germany as to her immediate foreign trade, according to a translation from a Finnish journal transmitted by an American consul at Copenhagen, which says German manufacturers and merchants themselves are not optimistic.

—*Cotton.*

## BLEACHING KNIT GOODS MADE OF CARDED YARN

The string of cloth is run over a reel and into trucks which are divided into several compartments, each compartment being of such capacity as to take care of one string for the bleaching machine. It is not well to allow the goods to lie too long in these trucks before they are run on to the bleaching machine and wet out with water. Otherwise some parts of the goods are exposed to the air, and as there is more or less of the impurities still existing in the goods which have not yet been removed, there may be an oxidation by the air which will cause a certain kind of brown stain to form. If the goods are left too long, especially in the moist and warm condition, they will also be liable to the formation of mildew stains. As soon as the goods have been removed from the kier and placed in these trucks the separate ends are run over the reel in the bleaching machine and the machine filled up. Sufficient water must be placed in the bleaching machine to ensure the proper running of the goods.

This has to be guided by experience. Too much water will cause the cloth to float on the surface and thus cause the strings to become tangled. Also, if too little water is present in the machine, the cloth as it falls down and folds over will pile up irregularly, and the piles will fall over one on top of the other. This will also cause crossing of the

strings and tangling. The proper amount of water will also depend on the weight of the goods, light-weight goods requiring a different volume of water from heavy-weight goods. This volume of water must in all cases be determined by actual experience in running the bleaching machine. It will be found to vary from a depth of 18 inches to  $2\frac{1}{2}$  feet, depending on the texture and weight of the cloth.

The goods now running in the machine are washed in lukewarm water for about 15 minutes before chemicking; and the goods being in the open condition there is a better chance for the water now to remove all the matters which have been decomposed in the kier. If there are any kier stains noticed it would be well to give the goods a preliminary soaping; that is to say, the first wash-water should have a small amount of soap dissolved in it, and be at a temperature of about 140 to 160 deg. Fahr. Kier stains may arise from a variety of causes. Usually it is due to impure water. If pure filtered water is employed there is usually no cause for kier stains unless colored cotton has been used in the make-up of the goods.

Unfiltered water will nearly always give rise to trouble in the kier, either by reason of iron contained in the water which combines with the oil and alkalies to form a brown insoluble precipitate on the goods, or the stains may be caused simply by insoluble matter in the water, which is otherwise known as plain mud. It must be remembered

that any kier is really a filter on a large scale, and the water which circulates through the kier is really filtered thereby, and any insoluble matter which may exist in the water will be caught up in the meshes of the cotton. On this account all bleaching establishments should filter the water they use, for however pure the supply of water may be considered, there will always arise occasions when filtering is not only desirable, but necessary.

Nothing is so subject to variation as the water supply. In different seasons of the year, rain, heavy winds, and other natural causes have a great effect upon the constituents and condition of the water, and the bleacher can only be assured of a constant quality in the water by proper filtering. For purposes of thorough washing in the string-tub machine a water spray pipe should run across the entire machine just in front of the goods before they pass into the squeeze rolls. The water passing out through this spray under a heavy pressure will be forced thoroughly into the goods just as they pass into the squeeze rolls. During the washing the drain valve should be allowed to be half-open, and fresh water should be continually admitted into the machine through the spray pipe while the dirty water is constantly running off.

Second.—A treatment with chemic solution is given; this continues for about 40 minutes to one hour, and the strength of the bath varies from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  deg. Tw., depending on the weight



and the character of the cloth. For heavy-weight goods containing yarns which are composed of rather low-grade cotton waste it will be necessary to use the stronger solution, for such cloth will be contaminated with a large number of motes or shives, or so-called "sticks," and these have to be removed by the action of the bleaching agent. For lighter-weight goods composed of better yarns it will only be necessary to run for a shorter time, and with a lower strength of the chemic bath. For heavy goods of low-grade waste yarn the time or treatment should be for about 45 minutes cold, then the temperature of the chemic should be raised to about 110 deg. Fahr., and the goods run for about 15 minutes longer.

This treatment with the hot chemic is necessary to decompose, bleach out, and destroy thoroughly the thicker motes in the yarn. For lighter-weight fabrics which are of a cleaner character, it would not be necessary to employ this hot chemic. Extreme care must be

taken not to let the chemic solution go beyond 110 deg. Fahr., otherwise the oxidizing action of the chemic bath will be so great as to cause injury to the cotton fiber, and it will also make the goods hard in feel as well as tender in strength. It will also be found that if the strength of the chemic is too great, or if the temperature at which it is employed is too high, instead of the goods becoming whiter in color they will acquire a yellowish cast.

Third.—After the treatment with the chemic solution has been completed, a thorough washing must be given to remove all excesses of the chemic and lime compounds. Fresh water is run through the machine continuously while washing by means of the spray pipes, the waste-valve being left partly open so that the wash-water may run off. This washing after chemicking must be very thorough, and be continued for at least 45 minutes or an hour. If insufficient water is employed, or if the washing is not continued for the necessary length of time, various faults in bleaching may easily arise; a great many defects in the bleaching of knit goods may be traced to insufficient washing after the bleaching operation.

*(To be concluded.)*

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To deal in textiles, Levin & Wallace, Inc., have been incorporated under the laws of New York. The capital of the new company is \$75,000, and principal incorporator is W. Levin, 1217 Forty-eighth Street, Brooklyn.

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The manufacture of Atlamine Green 2G, a chemical duplicate of Diamine Green G and Oxamine Green, has been perfected by the Atlantic Dyestuff Company, Boston, Mass.

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The Hancock Yarn Mills, recently incorporated at Philadelphia, will occupy a plant at Palethorp and Huntingdon Streets for the converting of cotton and woollen goods. The company has a capital of \$28,000; C. C. Drew is president and L. A. Safir treasurer.

### "GERMAN DYESTUFFS"

A prominent advertisement appearing last week in a New York daily paper, headed "German Dyestuffs," attracted considerable attention in dyestuff circles. The purport of the advertisement, which was signed by Alfred Walter, with the address Room 605, 109 Broad Street, was to the effect that the signatory was in a position to expedite the securement of German dyestuffs and other chemicals upon the indorsement to him of allocation certificates obtained from the War Trade Board prior to the suspension of the issuance of such certificates on February 14.

A representative of the REPORTER, being naturally interested in learning what was behind the advertisement, interviewed Mr. Walter and obtained the following information:

Mr. Walter said that he was associated with Paul Hilkin, who was, not long since, vice-president of the Eastern Forwarding Company and of A. Schumacher & Co., the latter being Baltimore representatives of the North German Lloyd and the former the distributing concern to whom the famous "Deutschland" cargo of dyestuffs was consigned. It was Mr. Hilkin who, at the request of the German Government, went to Germany and arranged for the "Deutschland" cargo. He also, in this country, bought the materials which constituted the "Deutschland's" return cargo. Mr. Hilkin has resigned from the above-mentioned concerns and is now in the motor-truck business with the Seaboard Sales & Service Company, of Baltimore.

According to Mr. Walter, it is Mr. Hilkin's intention shortly to undertake another trip to Germany with a view to negotiating for a resumption of commercial relations between the two countries. Because of his acquaintance with political, financial and commercial circles in Germany he felt that he would be in a position to expedite the importation of such dyestuffs as might be allowed by the

War Trade Board to come into this country.

The advertisement was taken by many to mean that stocks of dyestuffs and other chemicals were already available or on their way from German sources, but this proved to be not the case. The advertisement was merely of a speculative nature.

### DRUG AND DYE IMPORTS IN BURMA

The principal chemicals imported into Burma during 1918 were sulphur from Japan, and sodium carbonate, sodium bicarbonate, acids and ammonia from the United Kingdom. Before the war sulphuric acid was the most important chemical imported, but this has been difficult to secure and is now manufactured in Burma. The great increase during the past few years has been in the importation of sodium carbonate.

Drugs and medicines come chiefly from the United Kingdom. The United States sends a few thousand

dollars' worth of patent medicines, quinine salts and other sorts, and Japan sends about an equal amount of various kinds of drugs and medicines.

Paints and painters' materials come principally from the United Kingdom.

Before the war between \$50,000 and \$75,000 worth of dyes, chiefly anilines from Germany, were imported into Burma annually. Since the German supply has been shut off, these materials are difficult to obtain. The value of imported dyestuffs during 1918 was \$43,280, of which anilines made up about \$17,000.

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### NOTES OF THE TRADE

S. B. Hall, of 74 Cortlandt Street, New York City, has been appointed New York representative for J. H. Stitt & Co., of Delaware, manufacturers of dyes and chemicals.

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Announcement has been made that the new plant of the Birmingham Coke & By-Products Company, Birmingham, Ala., is rapidly nearing completion. It is expected that by March 1 this plant will be producing tar, benzol, ammonium sulphate, etc.

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Under the laws of New York, the Polar Knitting Mills has been incorporated to manufacture knit goods. The capital of the new concern, headquarters of which will be located in New York City, is \$20,000. The incorporators consist of Joseph Engelberg, and Walter and Louis Berger.

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According to recent reports, British and French dyes are not reaching Japan in any considerable quantities, while the

importation of Swiss colors has practically ceased. Japanese importers have been extremely conservative in their purchases of dyestuffs in the United States. Slight advances have been noted in the prices of Direct Black, Auramine, Congo Red, Methyl Violet and Methanene Yellow.

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The directors of the King Philip Mills Corporation, Fall River, Mass., have voted, according to recent report, to distribute among the stockholders of this organization as an extra dividend U. S. Liberty Bonds held by the corporation to the amount of \$750,000 face value. This extra dividend will be distributed March 1, and is equivalent to a 50 per cent dividend, figuring the Government securities at their face value.

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John Eich, formerly with Kuttroff, Pickhardt & Co., Inc., as an expert in vat dye application, recently joined forces with the Newport Chemical Works, Inc., and will be attached to the latter company's Boston office. Mr. Eich is popular and well known among members of the New England dyestuff fraternity, and his association with the Newport organization should be of distinct value to that firm.

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The Goodenow-Brookfield Knitting Company, Kansas City, Mo., has completed plans for the erection of a new two-story and basement plant, about 56 by 140 feet. The structure will be located at Mill and Archibald Streets. J. F. Goodenow, 418 Archibald Street, is in charge of the work.

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Plans are practically completed by the Durham Hosiery Mills, Durham, N. C., to increase the capital of this organization from \$5,110,000 to \$9,610,000. The company will begin at once the erection of a large steel and concrete building for the manufacture of seamless and full-fashioned silk hosiery. Mill No. 2, also in Durham, will likewise be added to in the near future.





# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

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No. 8

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## IN RETROSPECT

Lapse of Time Shows Up More Clearly the Conscientious Effort of Senatorial Committee to Seek Solution of Dye Problem—Measure Now Should Prove Acceptable

WHEN the Subcommittee of the Senate Finance Committee appointed to consider the subject of protection for the infant American dye industry, as provided for in H. R. 8078, decided to report the bill favorably to the Senate proper, there were not a few who wondered why it was that the committeemen, after their previous actions had led some to believe that the chances for real protection being recommended were practically nil, should have rejected the relatively mild though effective licensing methods submitted at the final hearings, and should have thereupon turned around and sanctioned the far more stringent embargo provided in the bill as it stands to-day.

To those in close touch with the situation—on the "inside," so to speak—everything was as plain as a pikestaff, no doubt, all the way through the troublesome months which preceded final action. But now it is becoming more

and more apparent to the general public that the committee steered its way through a most amazing tangle of difficulties involving partyism, precedent, conscience, personal beliefs, the necessity for satisfying many conflicting interests—and powerful interests at that --and the solemn conviction, gained through a long and hectic study of the industry and the German menace from every possible angle, that the dye makers must be allowed to flourish here for the benefit of themselves, which matters comparatively nothing, and for the benefit of the entire country, which matters everything.

Even when every move of a given situation has been followed from day to day with painstaking attention and reflection, it is sometimes exceedingly difficult to correctly appraise an action, or a man, at the time when such action is taking place or when the man has just been brought to immediate and searching notice by some mighty deed of good-



ness or badness. Great as they were known to be by their contemporaries, it has taken years to throw into sharper relief the remarkable qualities of George Washington and Abraham Lincoln. Epochal as it was known to be by its framers, it is doubtful if the full significance and the farthest reaching effect of the Magna Charta could have been realized by the roughneck barons when they forced King John gloweringly to sign upon the dotted line. One of the first automobiles, if our information is reliable, was regarded as enough of a freakish novelty to be exhibited by Barnum along with the be-whiskered beauty and the blood-sweating Behemoth, or whatever it was, that perspired in such an original fashion; while from the principle of the zoetrope, another amusing toy, man at length evolved the motion picture drama which the writer will witness this afternoon if the printer will let him.

All of which is a circuitous and pedantic way of working around to the assertion that the committee, everything considered, had a devil of a time in getting up a measure with the teeth and claws to protect yet which they could feel would enjoy at least a Mongolian's chance of passing, knowing the temperament of the Senate better than most, and which they would want to have passed; and, further, that after a little while has gone by and we are enabled to get a better perspective on the events of the past few weeks, we shall all come to see that the wisest way was chosen and the very best possible way, it would seem, which could be devised to meet all difficulties and opposition.

The committee members, as a whole, were "sold" on the subject of protection being imperative. The license system appeared to be the only way of accomplishing this while allowing consumers of dyes to obtain their necessary supplies while the building process was going on. Yet the committee could not accept the principle involved as being sound or good practice, or a wise thing to "start" in this country. They likewise were loath to recommend it be-

cause they had a well-grounded hunch that an overwhelming majority of their brother Senators were of the same mind—even those who believed in protection to the limit. They were really up a tall, gnarled and knobby tree, with the Hobsonian choice between shinning over a legion of protruding knots and easily broken gum-sacs, and a long, sickening drop, to be followed by a short and equally sickening thud, to meet before they could ever hope to feel solid earth under their Senatorial sandals once more.

This is touched upon by Senator Watson, chairman of the subcommittee, in his majority report accompanying the bill finally submitted. Addressing the Senate, he says:

"Your committee recommends that the sections of the House bill providing for the issuance of licenses to persons desiring to import foreign dyes for domestic consumption be stricken out, because we are opposed to a license system in the United States and do not desire to see the Government take the initial step in entering upon such a system. The reasons for this are as numerous as they are obvious, and we do not deem it necessary to enter upon any extended argument as to the merit of our contention.

"Your committee further recommends that instead of the license system provided for in the House bill there shall be established an embargo on the admission of dyes to this country to be administered by the Tariff Commission in accordance with such rules and regulations as the commission may adopt within the limitations imposed by this act."

In another portion of the report Senator Watson says:

"One who has read the work of the German Government in the United States just prior to the war knows that the chemical industry in this country which was under the control of the German Government was the center of espionage, German propaganda and direct government activities. They prevented the use of coal-tar products in the munition industry. They under-

took to corner the supply of phenol in the United States and prevent its use in the manufacture of high explosives, and at the outbreak of the war they stopped its importation.

"The United States is virtually independent of Germany so far as the dye industry is concerned, and it is our duty to keep it so. We know what Germany will do to regain her hold on the industry in this country. We know that she will resort to State aid, cartel, combinations, trade export premiums, dumping, bribery, espionage and propaganda. She did this before and she will do it again."

We, personally, used to get a lot of fun out of bitterly assailing the Senate subcommittee and its dilatory methods, hesitancy and procrastination. But in the light of what they have done and the way they have expressed themselves we are eager to call attention to the fact that they have come through cleanly at last with what appears to be the bacon. Readers of the REPORTER do

not need to be reminded that this publication never advocated the license system for its own sake, or held that it would be a happy outcome if it should spread to other industries, but merely because there seemed to be no other way out of the desperate situation which confronts the American coal-tar industries and will continue to confront them until the bill is passed. Before the substitute which is now about to take its chances in the Senate was evolved, the license system was by far the lesser of two evils. Better downright paternalism or Government ownership and operation than the alternative—dependence upon Germany or any other nation for these vitally essential products! Better a grasping group of domestic dye barons which could be broken up later on, as numerous others have been before, than domination by a German group forever out of reach but able at any time to strike us a solar-plexus blow if any trouble arose! But the evolution of the present workable and efficient

protective measure makes unnecessary an advocacy of the license system and provides the "way out" with honor which the industry has been seeking ever since the approaching end of the world war began to cause uneasiness for the future.

The delay, of course, has been unreasonably long, even taking into consideration the fact that the subcommittee had to be educated from the ground up with respect to the dye and allied industries. It has already cost the country far too much. It is, indeed, not too rash to state that if in 1915 the American dye manufacturers and the potential dye manufacturers could suddenly have been informed that there could be no competition from outside sources until 1925, Dr. Herty's pilgrimage to the shrine of Kultur would have been unnecessary. We should have had a wild time for a while until the last "gyp" and one-night-stand "manufacturer" had succumbed to the incontrovertible law of sound business, but to-day we should have a fair range of

vat colors to pick and choose from instead of the announcement that some are shortly to be forthcoming.

Indeed, in view of the constant uncertainty which has dogged our manufacturers of dyes, it is no mean achievement to have arrived at their present excellent position. The next generation will wonder how they had the nerve to go ahead and invest any capital at all. Perhaps they would not have come so far had it not been that, having started for patriotic reasons, they found themselves caught on a narrow strip of beach between His Satanic Majesty and the deep, wet sea. Barring the enactment of protective legislation, they stood to lose out whether they went ahead or not, and in saying this it is not intended to take away from them one iota of the credit due them for their gritty fight and their brilliant technical exploits.

Yes, the delay has been exasperating, yet it is well that the subcommittee, if in doubt, took time enough to sift the testimony; for had the proposition come up in a half-baked condition there might now be weepings and gnashing of molars instead of pleasant prospects. Sentiment was against licensing and for protection from the start, evidently. It took time to steer clear of the shoals. It is just as well that the newsprint "rider" was lopped off, for it could have done no good if the measure was not sound; and although the real intention was to insure its speedier consideration, it will be the cause of greater satisfaction in the end to know that the attention which the bill will receive will arise solely from its intrinsic merits.

History's verdict will be that the committee did well but it should have done it sooner. If the delay had been absolutely necessary to insure the safety of the Longworth bill, regret without criticism would have appeared in future annals of the dye industry. But since all the extra time was needed, let us give credit for the happy completion of a difficult task and endeavor to minimize any additional effects of the delay by demanding action by the Senate as soon as possible.



## CONDITION OF TEXTILE INDUSTRY IN FLANDERS

The textiles manufactured in the East and West Flanders are principally of cotton and linen. However, some wool and artificial silk mills are also in operation, but the output of these mills is not to be compared with that of cotton and linen.

In 1914, prior to the war, very large stocks of cotton textiles had accumulated in the different centers of this district, so that a reduction in the output was seriously considered.

From information received from a very reliable source, there is no doubt but that the linen industries have been the most affected by the war, principally on account of their location, which happened to be in the operation zones of the German armies, and included practically the centers of the linen industry in Flanders, such as Courtrai, Iseghem, Ingelmunster, Roulers, Thourout, Zwevegem, Renaix, Menin, etc. The greater number of mills located in these centers have been more or less destroyed to such an extent that the reconstruction of some of them is impossible at present. In many of them looms were partially removed, while in others machinery of different kinds was taken away.

Opinions differ as to the time it will take to restore the industry to its pre-war output. Many of the mills that have been partially reconstructed are now working, but only to a very limited

extent, so that the total output of these mills is far from being normal. A very great drawback to the success of this industry is that practically all the finishing plants have been more or less destroyed, with the result that the greater number of the linen mills, the products of which had to be finished, are no longer able to turn out articles which are suitable to the trade. These mills can only offer goods in loom state, which condition meets with few buyers.

Practically all the machinery employed in these mills prior to the war was of British origin. It was for this reason that large British loom makers, immediately after the armistice, visited the mills and booked orders for looms and other textile machinery, which had been taken away or destroyed by the enemy. It was evident that from the active measures which they took that they feared competition from American machinery manufacturers. However, the writer was told that no offers of any kind were made by American loom builders. If American manufacturers of looms and other textile machinery had taken steps to carefully examine this market, there is no doubt but that they would have been able to introduce American-made looms into the industry here.

Some of the principal items of export in the linen trade are white linens, pad-dings and dress linens, all of which are shipped on a very large scale, the

*(Concluded on page 12.)*

**AMERICAN DYESTUFF REPORTER**

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**COUNTING CHICKENS**

There is no doubt that it is the height of folly for commercial interests, or in fact anyone else, to indulge in the practice of counting the season's crop of chickens before the fledglings are safely out of the shell. With monotonous regularity during the past several months the editor of the REPORTER has caught himself in the act of indulging in this most reprehensible practice. In other words, we have frequently felt moved to congratulate ourselves and ask our readers to join with us in celebrating the definite protection of the American dyestuff industry. But each time we have restrained ourselves with difficulty and within a week or so have been glad that we exercised the restraint for, as we all know, the necessary legislation is still pending.

At the present writing, however, it seems *almost* safe to say that adequate protective legislation will be passed. We have seen that during the summer the House enacted the Longworth bill by a very satisfactory majority and that throughout the fall and winter the Senate has given consideration to this document, until at last, with strengthening modifications, it has been reported favorably on the floor of the Senate by the Finance Committee. How long it will be before the Senate as a whole takes action on this most important piece of legislation and how long thereafter before the House may agree to the Senate amendments and the President finally affix his signature, only time can tell. But, as said above, it now

seems *almost* safe to say that such devoutly-to-be-wished consummation will take place within a reasonable length of time.

We feel an impulse to go ahead and talk about the wonderful things which this protection will mean for the dyestuff industry, about the possibilities for development both at home and abroad and about the final elimination of Germany's hopes of regaining world dominion in dyestuffs but, on second thought, we believe that such matter is better left until the protective measure has been finally enacted into law. In the meantime, it is pleasant to note that the anniversary of the birth of the Father of his Country finds America at least in a fair way to occupy a position in the world of dyestuffs comparable to that which she has established for herself in other fields of industry, science and finance.

**PUBLICITY FOR DYESTUFF INDUSTRY**

It is rumored throughout dyestuff circles that in the comparatively near future at least one of our large dyestuff manufacturing companies will inaugurate a campaign of educational advertising to be carried out through the daily newspapers of the country and directed to the ultimate consumer, that is, the public at large.

If this report is correct it will mean the taking of action along lines which the REPORTER has long advocated. We feel sure that only a comparatively small percentage of the general public realizes the tremendous strides which the American dyestuff industry has made since the outbreak of the war and that a large proportion still believes in the bugaboo of German superiority in this field.

Intelligent newspaper advertising, coupled with the proper sort of propaganda and sincere co-operation on the part of the trade papers throughout the consuming dyestuff fields will do a great deal to lay at rest, once and for all, this Teutonic specter.

And it will have another very tangible and no less beneficial effect upon the industry, in that it will enable the public to place responsibility for faulty dyeings where, in most cases, it properly belongs—not on the manufacturer of dyestuffs but on the dyer who attempts to use good dyes for purposes for which they were not intended and so achieves poor results, or who, through haste, carelessness, ill-will, or some other cause, impairs the quality of the finished product which the soundness of his materials would, with proper handling, have made possible.

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**A. C. S. DYE SECTION TO HOLD  
APRIL MEETING IN ST.  
LOUIS**

The second meeting of the Dye Section of the American Chemical Society will be held in St. Louis, beginning Wednesday, April 14. At this meeting the Committee on Permanent Organization will submit by-laws

for the consideration of the Section, the approval of which by the Section and by the Council, will be the necessary steps to the permanent organization of the Dye Chemists of the United States, as the Dye Division of the American Chemical Society.

The secretary asks all scientific workers in the field of dyes to present the results of their researches and experiences at these meetings of the dye chemists. Papers on the manufacture, properties or application of dyes, both of coal tar or natural origin, will be of timely interest. Any chemist having any such scientific information ready for presentation is asked to communicate at once with the secretary, giving subject and time for presentation.

As is usual, full details of the final program, time and place of meeting can be obtained by addressing Dr. C. L. Parsons, 1709 G Street, N. W., Washington, D. C., or R. Norris Shreve, secretary, 43 Fifth Avenue, New York.



## CONDITION OF TEXTILE INDUSTRY IN FLANDERS

*(Concluded from page 9.)*

demand increasing from year to year. These articles were principally manufactured by mills which only did the weaving, and as stated before, when in loom state were sent to the finishing establishments. These last-mentioned establishments, the greater number of which having been more or less destroyed, are not in a position to finish the articles presented to them in loom state, thus considerably reducing the demand.

The question of exportation of linens to the United States is one of the most difficult questions at the present time, principally on account of the prices of linen yarns, which have risen to as high as ten times the pre-war value, with a general tendency to still increase.

This situation places the weavers in a most delicate position with regard to the export trade, and none of the weaving establishments show a disposition to contract for more yarns than they really need to fill orders booked at long or short delivery.

Some of the largest weavers state that if the exportation of yarns was prohibited there is not the least doubt but that the prices would speedily decrease, or at least become steady, and thus place the weavers in a far more favorable position.

There is no doubt but that any real improvement in the existing situation, with regard to the exportation of linen textiles to the United States, will only be attained when the prices of yarns show a downward tendency, and this situation can only be expected when Russia is able to export large quantities of raw flax.

The exceptionally high prices for flax yarns have lately opened the possibility of importing certain qualities and numbers from the United States. In fact, several American firms are already making inquiries as to the possibility of introducing American flax yarns into Belgium.

## BLEACHING KNIT GOODS MADE OF CARDED YARN

*(Concluded from last week's issue.)*

Fourth.—After this thorough washing has been given, it will be necessary to give a treatment with "antichlor." This is nothing more than sodium bisulphite, which is used for the purpose of neutralizing the chlorine compounds. The amount of antichlor it is necessary to employ will vary from 3 to 5 per cent on the weight of the goods, depending, of course, upon the quantity of chemic solution which has originally been used. The amount of antichlor, however, should be ample, and after the goods have been so treated they should not show the slightest test of any presence of chlorine. This test can easily be carried out by pressing a piece of potassium iodide and starch paper onto the wet goods, or by moistening a portion of the goods with a solution of starch containing potassium iodide. The test paper of potassium iodide and starch is easily prepared by soaking strips of filter paper in a solution of starch containing some potassium iodide and allowing the paper to dry. This mixture of starch and potassium iodide is a characteristic test for the presence of even very minute quantities of chlorine. The slightest trace of chlorine when brought in contact with this reagent will develop a bluish to a black color, depending on the amount of chlorine present. The treatment with the antichlor solution is in the cold, and the time of running should be from 20 to 30 minutes. Sodium bisulphite is a very efficient antichlor by reason of the fact that the sulphurous acid it contains is readily oxidized to sulphuric acid, and since chlorine is a strong oxidizing agent, they mutually neutralize each other.

Fifth.—A thorough washing is again given after the antichlor bath has been run off from the goods. It must be remembered that in this antichlor or sodium bisulphite there is considerable acid, and it is necessary to remove all such acid, otherwise various faults will

arise. The washing after the treatment with antichlor, therefore, must be very thorough, and should be continued for about 45 minutes, employing a good flow of fresh water through the spray pipes and leaving the drain-valve from the machine partly open so that the cold water is continually running away.

So far as the bleaching operations proper are considered, this last souring or antichlor treatment completes the process. In many cases it will not be necessary to give any further treatment to the goods; but in some instances, especially where heavy and low-grade materials are used, it will be considered essential to soften the goods before they go to the cutting room. The softening is produced by running the goods in a bath containing soap, or a mixture of soap and soluble oil, or even a suitably prepared softener. If considered desirable, the cloth may also be blued or tinted in this final softening bath by the addition of the necessary amount of bleaching tint. This is for the purpose of changing the tone of the white, giving it a bluish cast, which by some customers is considered more pleasing to the eye.

The use of tinting agents, however, is not to be recommended in general. They add very considerably to the bleaching difficulties of obtaining even and uniform goods. Furthermore, very frequently the tint which is employed is not especially fast, and after the goods have been stored for some time, they will lose this blue cast and return to their original color. The advantage of this system of bleaching the cloth in string-tubs is that throughout the operation there is a uniformity of treatment through the whole length of the goods; and furthermore, the cloth is in the open and floats through the liquor, so that it receives a very thorough treatment. Consequently there is less danger of lack of uniformity of bleaching, and the color is more likely to be even throughout the entire fabric. There is also less danger of the various faults of bleaching which we have considered in the other process. If properly con-

ducted, and if the washings are very thorough, there should be absolutely no danger of the after-tendering of the goods, or of the development of a yellow color on storing.—*Posselt's Textile Journal*.

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#### L. B. HOLLIDAY & CO. ESTABLISHED BRANCH IN CANADA

It will be of interest to our readers to learn that L. B. Holliday & Co., Ltd., manufacturers of Aniline Dye & Coal Tar Products of Huddersfield, England, have now established a Canadian branch office and warehouse with headquarters at 179 Common Street, Montreal, and are now holding large stocks and a good range of colors in Canada. Expert travelers are working from Toronto and Montreal, and while the output of certain colors is somewhat restricted due to plant and building difficulties, they are nevertheless maintaining a good supply of dyestuffs.

Huddersfield, England, is a town which has been roused to great purpose from the pre-war-day of small things; not only that its famous cloth mills, its engineering shops and its chemical works showed a feverish war-time activity, but that its honorable name as a pioneer and for long the most successful producer of synthetic dyes in England, has been brought into an entirely new prominence.

After the discovery of the first color derived from coal tar Huddersfield immediately became important as the chief center of tar distilling in the country and colors were actually manufactured and new patents taken out in the early sixties. Now, while much of the town's dye-making activity is turned into large and state-sided channels, the original spirit of individual enterprise and the name of Holliday with which it was always associated, are perpetuated in the firm of L. B. Holliday & Co., Ltd.

#### NOT HAMPERED WITH TRADITIONS

To the wider circles of the world's dyestuff users it is perhaps of more interest to reflect that the firm thus founded not only had a late start (the first sod was not cut till September, 1915) but, moreover, in contrast with other firms which have succeeded in some measure in meeting the dye shortage, started from absolute zero in having no plant, no staff, no process in work, and no business connections

established. It is quite true that the fresh start carried with it some advantage also. There was no temptation, for example, to be satisfied with tinkering with old and inadequate staff, or plant, or buildings, or site; but all these could be chosen with care and planned on a scale commensurate with the new needs: so that, to take one point only, the new works at Deighton, is admirably situated with regard to canal frontage and railway facilities. Nevertheless the unavoidable delay we have mentioned was a real handicap and is the measure of the value of L. B. Holliday & Co.'s attainment.

The production of dyestuffs and drugs had not commenced at the end of 1917, and yet the output, apart from explosives, had reached within six months the substantial amount of fifty tons per month, comprising more than twenty separate products.

#### LARGEST INDIVIDUAL COLOR MAKERS

That this creditable result is due in the first place to the individual enterprise and energy of Major Holliday adds a good deal of point to the reflection that L. B. Holliday & Co., Ltd., are the largest British color makers outside the Government aided combine.

The first department to be started, and the nucleus of the present works, was the manufacture of Picric Acid on plant designed to carry out a new and patented process. Around this was subsequently commenced the manufacture of certain basic, acid and sulphur colors, side by side with research work which has rapidly added fresh items to each group and has laid the foundations for a range of fast anthraquinone dyestuffs for both cotton and wool. The development of the basic colors has been particularly rapid and successful. In spite of the handicap of war conditions, which in some instances made the best results difficult of immediate attainment, the quality of all the dyes hitherto put on



the market need fear no comparison, either in brilliance or fastness, with chemically similar dyes of any other make.

In addition to the dyes, large quantities of the antiseptic salicylic acid have been manufactured, together with its drug derivatives, aspirin, etc., and the firm are still rapidly adding to their range.

## SOAPS AND COTTON GOODS

The fibers in cotton and linen goods contain very much less impurity than wool and silk fibers, and consequently the amount of soap used in this industry is much less, being applied only to the fabric. It is employed in three different operations; cleansing the cotton goods preparatory to dyeing, during and after dyeing, and in calico printing.

Since dilute caustic alkali has no harmful action upon the cotton fiber, the soap used in cleansing and preparing cotton goods for dyeing need not be neutral; in fact, slight alkalinity assists the cleansing. Any curd soap made from tallow, or tallow with a small proportion of coconut oil, may be used for the purpose.

### DYERS' SOAPS

Soap is used to a fairly considerable extent in the dyeing of cotton goods. In the dyeing of many direct colors soap is frequently used to the extent of 3 to 3½ pounds per cwt. of cotton which is dyed.

The turkey-red, alizarine-red, and para-red dyer uses soap after dyeing his cotton goods. The object is to bring about a brightening effect on the color, while there is no doubt the operation tends to fix the color on the cotton better. The soap affects these objects by first removing any excess of dyestuff from the cotton, which has not been united with the mordant that was first fixed on the cotton, and which excess of dyestuff, if left in, would dull the color and might subsequently give rise to stains. Secondly, there is no doubt

that the soap has a tendency to enter into combination with the dyestuff on the one hand and the mordant on the other, so that a triple combination of soap, dye and mordant is fixed on the cotton, which is faster and brighter than a simple combination of dye and mordant.

The soaping is generally effected by working or passing the dyed goods through a soap liquor of a strength of 2 pounds per 50 gallons of water at about 150 deg. Fahr. The best soap for this purpose is a green olive oil soap, made from sulphur olive oil, and known as Marseilles soap. This is made to contain 62 to 64 per cent of oil, with a corresponding proportion of alkali and water. Olive oil soaps are fairly soluble, and leave no unpleasant odor behind them. Palm oil soaps also work well; they are not so soluble as olive oil soaps; they have a pleasant characteristic odor, and do not go rancid. Tallow soaps have been and

are sometimes used, but they lack solubility, and have some tendency to go rancid, hence their use is not advisable.

### CALICO PRINTER'S SOAP

Calico printers use soap to a considerable extent in the final operations of washing and clearing the printed cloths. The soap is made into a liquor of a strength of approximately  $1\frac{1}{2}$  pounds of soap to 50 gallons of water; some printers will use a stronger liquor, others a weaker liquor. Then the dyestuffs with which cotton cloths have been printed have some influence. Thus, alizarine and alizarine colors in general require a stronger soap liquor than do basic dyes, like methyl violet or methylene blue. Mordant dyes, like alizarine yellow, chrome red, etc., take a medium strength of soap liquor.

The function of the soap is not thoroughly understood. No doubt it plays several parts, which will vary according to the dye or dyes that have been printed on the cotton. In all cases it has a clearing action on the gum or starch thickening used in the composition of the printing pastes, facilitating the solution of these, and therefore their removal from the cloth. In the case of alizarine and mordant dyes in general, it has a decidedly brightening and fixing action. Probably this is brought about by a removal of excess of dyestuff that has not entered into combination with the mordant, thus helping to brighten the color, while the fatty matter of the soap may enter into combination with the mordant and thus tend to fix it on the cloth, at the same time bringing about a more complete combination of mordant and dye, a triple compound of

fat, mordant, and dye being formed as a kind of lake pigment, which is fast and bright.

In the case of basic dyes probably the soap may remove traces of dye which has not properly entered into combination with the tannin-antimony mordant used, and so tend to make the finished print faster to washing. Possibly also some of the fatty matter of the soap may enter into combination with the antimony, etc., and help to render it more insoluble, and in that way printed fabrics may be produced which are faster than would otherwise be the case.

Soaps which are best adapted for treating printed calicoes and other fabrics should be easily soluble in water, and therefore oil soaps are best. They should be quite neutral (as any free alkali would be liable to change the tints of some colors and make others run), must contain no rosin, and must be such as do not leave any objectionable odor on the material, hence cotton seed and maize-oil soaps should not be used.

The question of solubility of the soaps used with calico prints is a very important one, for the more soluble the soap the more fluid is the liquor it makes, and the more easily will it penetrate into the fabric as the latter passes through the soap liquor; while further, the temperature of the soap-bath need not be raised so high. The best and the most easily soluble soaps would be, of course, neutral potash soft soaps, and such are even used by some calico printers for their best and most expensive prints. Calico printers' soaps should be quite free from fillings of any

kind. Some of them may contain 1 to 2 per cent of common salt or sodium sulphate, the presence of which is of no practical moment and cannot always be avoided.

While hard soaps may be used for soaping cotton, silk and half-silk fabrics, for soaping woolen and half-woolen cloths (delaines), it is preferable to employ soft potash soaps, for these tend to more thoroughly preserve the luster and pliability of the wool fiber. Such soaps must be quite neutral, and contain no free alkali or free fat.—*Canadian Textile Journal*.

### FIRST INDUSTRY LOCATES AT NITRO

The Director of Sales, U. S. War Department, announces that the first commercial industry to locate at Nitro, W. Va., the War Department's "Smokeless Powder City," will result from the purchase by the Central Foundry & Supply Company of Columbus, Ohio, of a factory site from the Charleston Industrial Corporation of Charleston, W. Va. The sale has been approved by the Ordnance Salvage Board and the Director of Sales, in accordance with a contract under which the Government sold Nitro to the Charleston Corporation last December.

The "Smokeless Powder City" site, which was selected by the Central Foundry & Supply Co., consisted of five and a half acres of land and contained such buildings as a sheet metal shop, a brass and iron foundry, a pipe

and electric shop, a welding shop and numerous smaller structures. The purchasers will establish a branch plant at Nitro, W. Va.

### NEWPORT ISSUES NEW WOOL SHADE CARD

A new shade cord designed for the use of the color-consuming wool trade has just been issued by the Newport Chemical Works, Inc.

The card which has the same features as the cotton card recently issued by this firm is in the form of a loose-leaf book, record being kept of those to whom copies are sent and additional pages forwarded as the line expands.

Colors are shown on bows and arranged to exhibit shade differences.

The line of colors displayed is very comprehensive and it is apparent that this company is as prepared to meet the demands of the wool dyers as it has been to meet those of the cotton dyers.

Wool dyers will find the card interesting and useful and the Newport Company is to be congratulated both on the appearance of the card and the accomplishment it represents.

Announcement has been made by the Alden Knitting Mills, of Meridian, Miss., owned by Alden Brothers, of New Orleans, of the establishment of another branch mill at Meridian. About 50 new operatives will be employed as a result of this addition.



## NOTES OF THE TRADE

To manufacture worsted, cotton and silk hosiery, the Royal Hosiery Company has been incorporated under the laws of Delaware. The capital of the company is \$1,100,000 and the incorporators include M. L. Horthy, M. C. Kelly and S. L. Mackey.

With a capital of \$25,000, the Apollo Silk Company has been incorporated under the laws of New York to deal in broad silks. Headquarters of the new company will be located in Manhattan, and the incorporators consist of J. L. Kleinberg, C. Moshkow and J. Brunswick.

Under the laws of New Jersey the Manhattan Hosiery Company has been incorporated with a capital of \$250,000. The plant of the company will be in Paterson, that State, and the incorporators consist of Robert H. Naive, John Pomfret, Jr., and Robert F. Buckley.

The British Dyestuffs Corporation, in a recent report, announces that the profits for the year ending October last justify paying 8 per cent on the preferred capital, whereof £4,077,000 is issued, after paying 7 per cent on £4,106,000 preference capital. No dividends are announced on the £980,000 deferred.

Under the laws of New York the To manufacture wearing apparel for men, women and children, the D. V. S. Clothing Company has been incorporated under the laws of Massachusetts with a capital of \$30,000. Headquarters will be in Boston, and the officers of the company are: Harry L. Michaels, president; Henry Cashman, treasurer, and Walter Harstone, clerk.

Fabal Woolen Company has been organized, with a capital of \$20,000, to manufacture woolens, etc. Headquarters will be in Albany. The incorporators are Louis Epstein, Max Gottlieb and Harry Wylan.

To operate the Necronsett Mills, recently acquired by the incorporators, a charter has been filed by the Corley Cotton Mills, Cumberland, N. C., with an authorized capital stock of \$500,000 and a subscribed capital of \$60,000. The incorporators are Clifton Corley, John R. Tolar and R. M. Vanstory.

Announcement has been made by the Standard Color Works, of Manhattan, that the capital stock of this company has been increased from \$25,000 to \$100,000.

Under the laws of New York the Ciba Company has been incorporated, with a capital of \$200,000, to handle drugs, chemicals and dyestuffs. Headquarters will be in New York City, and the incorporators consist of A. R. Palmer, G. F. Handel and I. Reid.

With a capital of \$10,000, the Azote Chemical Works has been incorporated under the laws of New York. Headquarters will be in Manhattan, and the incorporators include M. Schloesser, S. Baar and S. Oliphant.

The recently organized Stroudsburg Textile Company, Stroudsburg, Pa., has elected Henry F. Johann as president and Francis P. Somers as treasurer. The company will engage in the manufacture of silk and wool jersey and underwear fabric.

Fast, bright colored dyestuffs are absolutely essential in the carpet trade, declares the Canadian Textile Journal, which supports its contention with the interesting information that as many as 100 different shades are woven into one Axminster carpet. For this class of carpet alone, yarns were formerly dyed about 5,000 different shades.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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No. 9

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## GOOD NEWS FROM WASHINGTON

Full Information Concerning the Dye Bill's  
Try-Out Reverses the Impression Gained  
from First Reports in the Daily Press

**G**OOD news and bad—but in the main good news—comes over the wires, through the mails and by word of mouth from the nation's capital and from officials of the Port of New York this week alternately to fan and dampen the spirits of manufacturers and consumers of dyestuffs—with the encouragement running about 70 to 80 per cent and the discouragement 30 to 20.

Those who are in any way acquainted with this publication and its policies with regard to the question of protection for the American dye industry, and the importance of the Longworth bill, need no further reminder. Others may guess right the first time by merely reading over the name of this journal carefully.

Those, then, who were obliged to depend upon the perusal of almost any one of our newspapers for the color of their opinion of the doings in the Senate last Wednesday, will think the title of this article is a mistake. Those who acquired their information from other and more reliable sources will know that

it correctly states the complexion of the Washington news; in the main it is good news.

For out of the proceedings of the past week, the following facts shorn of superfluous detail, stand forth as the only acceptable summary, or interpretation, of the whole situation:

1. The Longworth bill, carrying with it the clauses essential to the protection of the dye industry, will be enacted by a safe if not a wide margin.

2. The proposed measure may, as a result of questions of procedure and the lack of sufficient time for debate, operating in combination, be delayed for weeks and even months.

3. There is a possibility, none too probable, that it may be passed during a lull in the forthcoming battle over the Peace Treaty; this possibility is worth mentioning for its interest but is not worth depending upon in the slightest degree.

4. The various news agencies and correspondents serving the daily press of New York have bungled the story of the dye debate in a manner inexcusable even for the most inexperienced "cub" reporter, and have managed to spread abroad an impression which will produce an adverse effect upon vacillating supporters of the bill unless smothered promptly.

5. The first shipment of Reparations vat colors has at last arrived in this country and soon will be distributed.

Summing up, an unfortunate delay has occurred in the progress of the Longworth bill, but the prediction that the bill will become a law substantially as it stands is now a safe one to make.

There is no attempt on the part of the REPORTER to crow, or to count any chickens before they are hatched. The statement is merely the really important part of the actual news. It outweighs all other considerations and makes the burden of the Washington refrain a cheery chantey instead of a dirge.

To get down to cases, the Longworth bill received its "baptism of fire" in the Senate on February 25, and came through the ordeal in splendid trim.

Senator Lodge had agreed to postpone calling up the Peace Treaty from Tuesday until Thursday in order to allow two days for the consideration of the civil service retirement bill and the dye protection bill. The "day" allotted for the latter degenerated into some three hours of actual debate, which ended in no action being taken. Technically the bill is just where it was before. It is not even included in the order of unfinished business, and since the Massachusetts Senator has announced his firm intention of allowing nothing to interfere with the Treaty until it can be finally disposed of, it must take its chances as to the time when it shall again come into the limelight. But in the face of the test it revealed a strength hardly expected even by some of its most ardent sup-

porters; the weakness of the opposition was surprising, and the sentiment of our Solons was shown to be, in the main, very favorable.

When Senator Watson, as chairman of the subcommittee of the Finance Committee, called for a vote on the question of taking the bill up for discussion, the balloting stood 57 to 11 in favor of considering it.

Senator Watson then outlined the reasons for its early enactment in capable and convincing fashion. The absence of party feeling in connection with the question was indicated when Senators Poindexter, of Washington; Frelinghuysen, of New Jersey; Knox, of Pennsylvania; Smoot, of Utah, and Fall, of New Mexico, all Republicans, and Senators Wolcott, of Delaware; Nugent, of Idaho, and Simmons, of North Carolina, Democrats, announced themselves as being in favor of the measure. The influence of the last mentioned, as former Democratic leader, is regarded as being an important factor.

The opposition came principally from some of the Westerners, notably Senators Kenyon, of Iowa, Republican; King, of Utah, and Thomas, of Colorado, Democrats. These appeared to feel that consumers were not properly protected by the measure, but their objections were based principally upon artificial and sectional considerations rather than upon any well-grounded charges attacking the intrinsic merits of the bill. Senator King, in particular, whose speech used up a full half hour of the time, dwelt almost wholly upon political questions.

The real stumbling block proved to be Senator Poindexter's contention that the Finance Committee should not have reported out the Longworth bill for consideration ahead of the bill providing for the protection of the magnesite, chemical glassware and potash industries, which was submitted first. He insisted that the latter must receive attention and some kind of an understanding must be agreed upon before the dye question is taken up. By only half telling the story, some of the New York

dailies made it appear that he was against the passage of the dye bill, but as a matter of fact he favored it. He did not "oppose the bill," as one newspaper declared he did, but instead opposed only its being considered "out of turn," so to speak.

The utterances of Senator Smoot were likewise made to sound unfavorable. The gentleman from Utah stated that if he could have his way the dye imports would be regulated by a straight tariff, *but* he added that the President would not approve this manner of dealing with the situation and that he would support Senator Watson in his effort to have the present bill passed.

"At the close of the day," declares the correspondent of another newspaper, "Senator Smoot urged a vote on the bill. To this Senator Watson shook his head and proceeded to withdraw his motion for a vote made earlier in the day." This would cause the reader to conclude that Senator Watson feared

to have the bill voted upon because of the strength of the opposition. This is far from being the case, as the motion referred to was not a motion that the bill be passed, but merely that it be made the unfinished order of business. The opposition he feared was opposition to according the bill this status, and not opposition to its ultimate enactment.

Senator Frelinghuysen emphasized the urgency of the measure and the necessity for its early passage, citing the fact that President Wilson saw fit to make it the subject of special mention in a cable from France while the Peace Conference was in session.

Senator Knox entered a particularly strong plea in behalf of the bill on the ground of its role in any general scheme of military preparedness. He declared that Germany's most powerful military asset during the war was not her soldiers but her "spectacled chemists." These, he said, had transformed the face of the civilized world and must be



reckoned with hereafter in all lands. Germany's secret of success in war was due to the fact that she did not burn coal, but instead, roasted it and got out of it every last ounce of efficiency.

In all Germany, he said, there is not a single beehive coke oven wasting the valuable gases and by-products of coal, whereas in this country we are every year sending off into the blue sky from beehive coke ovens nearly a billion dollars' worth of rare values. His arguments appeared to carry considerable weight with his brother Senators.

Thus goes it with the Longworth bill, within which is contained the only present means for establishing the United States upon the foremost rank of coal-tar chemical achievement and military readiness. So far as can be learned from those who were present at the debate, none of the opponents of the measure was able to offer a single argument which can be regarded as weighty enough to worry over or which could stand up for one minute in the face of the overwhelming necessity for a strongly rooted and thoroughly matured coal-tar chemical industry.

Meanwhile, "up-to-the-minute" New York newspapers are printing statements like the following:

"The trade is waiting for further announcement about the progress made in shipping the German vat dyes here. The first consignment of goods still is held up in Rotterdam by the dock strike."

The foregoing appeared on Friday, February 27.

On Thursday, February 26, the first consignment, consisting of forty-one casks of Hydron Blue, arrived in New York Harbor, not more than ten thousand miles away from the publication offices of the newspaper which printed the report. The error is not of great moment, but it denotes exceptional carelessness.

The shipment came from Cassella, and distribution pro rata among consumers who have ordered this color will begin some time this week through the Textile Alliance. The vessel which

bore the shipment managed to get away from Rotterdam just before the strike tied up shipping there. Five more consignments, however, are still languishing in the Dutch port awaiting an agreement.

It is true that the shipment is merely a drop in the bucket. Yet it marks the first turning point in the resumption of relations with the German dye kartel and should come as a gentle reminder to the Senate that trade has begun even though the war is not officially ended. And it should further remind sundry newspaper readers that if you see it in the press it's so uncertain.

However, do not be misled by croakers and reports which do not accurately register the true state of affairs in Washington or elsewhere. It has been many a long month since the dye trade has had better news than that which has come from the Senate during the past week.

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## TWO NOTES ON VAT DYE-STUFF TESTING

By C. M. WHITTAKER, B.Sc.

In the routine work connected with the standardization of Chloranthrene Blue FC it will be readily understood that it is essential to test each batch for fastness to chlorine. It has been repeatedly noticed that the effect of the chlorine on the type varied very considerably from time to time, though carried out under identical conditions, as regards time of immersion in the bleaching liquor and strength of this liquor as well as that of the souring-off bath.

A particularly gross variation of the effect led to careful investigation of the cause which resulted in a rather striking observation. It was found on close inquiry that the material had been entered wet in some chlorine trials and dry in other trials. Experiments were therefore made in which the same dye test was worked under identical conditions in both the bleaching liquor and souring-off baths except that one part was entered dry, while the other was entered

wet. In every case—many confirmatory experiments were made—the shade of the hank which was entered dry was more strongly attacked than the shade of the hank which was entered wet.

In order to judge whether this applied to other vat dyestuffs trials were carried out with a large number of tests of other vat dyestuffs which were immediately available. Any vat dyestuff which showed variation in the bleaching liquor between wet and dry material was re-dyed and confirmatory fastness to chlorine tests carried out. Of those vat dyestuffs which were so tried the following showed differences in the effect of bleaching liquor on the wet and dry trials respectively:

Indanthrene Blue GC,  
Ciba Blue 2R,  
Algol Brilliant Violet 2B  
Helindone Blue 3GN.

Since all material to be bleached on the large scale is entered into the bleaching liquor wet the above note has no practical significance, but it may explain some discrepant results obtained from time to time in the laboratory.

Another note showing the great importance played by the temperature at which vat dyestuffs are reduced may be of interest. Using the following quantities:

0.6 grs. Chloranthrene Red 5G Paste,  
1.96 grs. caustic soda, 76 deg. Tw.,  
0.45 grs. hydrosulphite powder conc.

A vat may be prepared ready for use in fifteen minutes if the reduction is carried out at 120 deg. Fahr.; if the reduction is carried out cold the vat has to stand five hours before the color is completely reduced. This may be easily confirmed by making up six vats of the above identical quantities, reducing one at 120 deg. Fahr. for a quarter of an hour, but allowing the remainder to reduce in the cold. If these five cold vats are dyed out at intervals of one, two, three, four and five hours, from time of setting them, it will be found that the dyeings do not show equal depth to the dyeing done from the vat reduced at 120 deg. Fahr., until the cold reduced vat has stood five hours.

In my opinion both these notes emphasize once more the great attention to detail coupled with the keenest observation required to make reliable comparative dye trials of vat dyestuffs on the laboratory scale.—*Dyer and Calico Printer.*

#### ESSEX ANILINE IN NEW HOME

Announcement has been made by the Essex Aniline Works, Inc., of Boston, Mass., that the main offices of the company will be removed on March 1 from 39 Oliver Street, that city, to 88 Broad Street. Shipments of merchandise will be practically suspended between February 23 and March 8.

The laboratory of the company will be removed to the works at South Middleton, and all subsequent shipments of dyestuffs will be forwarded from that point.

The Italian textile industry is now operating 4,500,000 spindles, as against 4,000,000 before the war.

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LAURANCE T. CLARK, Editor

## THINGS MIGHT BE MUCH WORSE

It is unfortunate that on Wednesday last in the Senate the Longworth bill should have suffered what might be termed a setback as the result of a combination of circumstances in nowise reflecting upon its actual merits or its inherent strength. It is doubly unfortunate in view of the fact that only the final stages of a most prolonged legislative campaign yet stand between it and its final enactment into law.

It is to be regretted that what amounts to nothing more than a mere technicality has been able to prevent its benefiting by the golden opportunity provided by Senator Lodge's willingness to hold off the Treaty debate an extra day. Certain it is that a goodly share of the responsibility must be laid at the door of Senator Poindexter.

Had it not been for his—shall we say—sturdy objections to the false move made by the Senate Finance Committee when it reported out the magnesite bill only to withdraw it later and substitute the dye bill therefor, it is just possible that the normal opposition to the latter might have made so little impression as to have permitted of its enactment then and there.

But Senator Poindexter cannot be blamed for that, and the time may come when proponents of the Longworth bill will be glad that his strength is to be thrown into the contest on the right side. Unquestionably the Finance committee-

men perpetrated something akin to a *faux pas* when they diverted the magnesite measure from its legal channel, although in this instance we find it hard to cavil because the move so very nearly redounded to the advantage of the dye trade.

Yet, as we have stated ere this, much as we desire action, we do not desire it at the expense of something more important. Nor is it desired at the cost of any sort of an injustice. Having waited this long, and secure in the knowledge that things will come out all right in the end, it is felt that the absence of elbowing methods cannot but strengthen the case of the bill. Give the Senate time enough and who knows but that it may actually come to have some sort of guilty feeling about the Treaty and the Longworth bill! Better by far in any case to wait yet longer—since the legal continuation of the war still protects the dye trade—than to jeopardize by even so much as a single vote the chances of the measure which has occasioned such an up-hill, painstaking battle to get it thus far.

The contest over the Treaty may take days, or weeks. Some even predict that it will take months, and end by becoming an issue of the fall campaign. This, of course, is unthinkable, but should such a state of affairs actually come about it is hardly likely that some means could not be found for directing attention to the dyestuff measure between rounds, so to speak.

And so, the chief bother to manufacturers and consumers alike is the uncertainty. The uncertainty is now rapidly fading away and in its place there is the growing conviction that the Senate will not withhold from this vital industry the protection to which it is entitled.

As the result of last Wednesday's session of our Solons, there is every reason in the world for feeling enormously chirked up. On the whole, things might be much worse. It is our belief that the future safety of the dye industry may be regarded as practically assured.



## CARDS AND CARDING

Excerpts from a Lecture Delivered  
Under the Auspices of the Brad-  
ford Textile Society

By S. SMITH

The principles of carding were the same whether they were carding worsted wools, wool for woolen yarns, carpet yarns, felted productions, cotton, silk, ramie, china grass, or asbestos, said Mr. Smith. Each of these materials, of course, had its own particular characteristics, and, therefore, methods of working varied considerably in regard to speeds, and the setting of the various rollers. It would be impossible to speak upon each method individually in the time at his disposal. He would therefore keep mainly to the carding of wool used in worsted and woolen manufactures.

Carding was a process of separating, opening, straightening, cleaning and mixing. The work was accomplished

in varying degrees of excellence, according to the skill of the carding overlooker, and the relative efficiency and condition of the clothing on the various rollers employed. The wool was placed on the feed board by hopper feed, and he would like first to draw their attention to the question of feeder rollers.

### IMPORTANCE OF THE FEEDER ROLLERS

These were often thought to be of little importance, and in some instances they were allowed to fill up with wool until they had very little holding power. He would impress upon the student, or anyone responsible for the carding of wool, that the proper functioning of feeder rollers was of more consequence than was generally realized. They should firmly hold the wool between the teeth, so that it was fed as evenly as possible to the first licker-in. If the wool was not properly held there it was passed on to the licker-in in large locks, and consequently put a heavier strain on the clothing that followed than it other-

wise would do if the feed rollers were doing their work properly.

Further, the length of the staple was more likely to be shortened by coming into contact with the higher speed lickers, which were not intended to deal with such large locks or tufts. If the wool was spread fairly even on the first licker, so would it be passed along to the second, third and fourth lickers, and as each licker gained on its preceding neighbors in speed, the wool would reach the first swift in the best possible condition for the more severe carding which followed.

To make this point clear he asserted that if wool entered a card irregularly it would finally leave the back doffer irregularly, and any subsequent adjustment to overcome that irregularity would not remedy the defect.

The wool was carried forward by the swift from the fourth licker, and when it reached the first worker a more severe carding action took place. The wool on the swift was further separated and straightened to a varying extent according to the distance of the worker from the swift. The worker taking its complement of wool carried it forward until it reached the stripper, when it was stripped by this roller and delivered again to the swift.

This operation was continued on the second and third workers, and by that time the material on the surface of the swift was appearing much more even and straight, and was ready to be passed along to the second or last part of the machine.

Before it could be stripped from the swift, however, it must be raised to the extreme points of the clothing with as little disturbance as possible. For this

operation they relied on the fancy (which having larger teeth than other clothing, was more brush-like in form) and by setting it slightly into the teeth of the swift and running it at a slightly increased surface speed varying according to the nature of the material being carded, they were able to raise the wool uniformly to the points of the swift, after which it passed down to the doffer, which seized the wool and conveyed it to the last part of the machine. This last part was clothed with still finer clothing, so that as the process was repeated the finer clothing further opened and straightened the wool, when it was then seized by the last doffer, from which a perfectly carded film of wool should be finally stripped by the comb and drawn into the form of a sliver.

#### QUESTION OF EFFICIENCY

The foregoing explanation was, in some respects, rather elementary, but he thought it might interest the younger people, and also enable those who were not sufficiently advanced in the subject to grasp the more important points which he would put before them presently. Coming to the question of efficiency, they had now reached the time when, owing to shorter hours, the high price of raw material, and when machinery and card clothing were three times their pre-war level, they must aim at methods which would give them a bigger production, and at the same time maintain the standard quality of the work, so that they could meet foreign competition with prices which would secure the foreign trade which was awaiting us if we could do it. Personally, he did not think this would be ob-

tained so much by increasing the speed of machines as by increasing or maintaining a high percentage of efficiency, and altering the speed of certain parts of the machine relatively.

In carding open or lofty wools they must aim at passing the material from one part of the machine to the other as quickly as possible. The material should not be allowed to stop in the machine a moment longer than necessary, for by so doing not only were they shortening the staple, but inviting neps and causing unnecessary loss.

In many cases a large surface speed of the doffers and a more efficient working of the fancies would help a great deal in this direction, and in many cases it might be possible to increase the production by these means, owing to the material being passed from part to part by the doffer in a thinner film—thereby allowing a little more weight to be put through the machine.

Efficiency in a carding engine could only be maintained by clearing the swifts as completely as was practicable of their complement of wool as it came into contact with the doffer. They might make what adjustments they liked, but unless they had clear swifts they could not have efficient carding. In many cases, through some cause such as inefficient clothing on the doffer or an inefficient fancy, the swift was not cleared at each revolution. The wool, instead of going forward, passed round and round the swift until only by accumulation did it pass to the doffer, and was in a much worse condition than when first taken up by the swifts.

*(To be concluded.)*

## DYEING VELVETEENS

Cotton velveteens are composed of two main classes of fabrics: corduroy for men's wear, and velveteens for ladies' wear. The treatment preliminary to the dyeing is much the same for both classes, with due regard to the texture of the particular fabric under consideration. After having been appropriately singed the material is boiled

out in a hot solution of soda, and in some cases it is preferably treated, previously to the boiling out, in a hot solution of malt or diastase, with the object of facilitating the removal of the size from the fabric. The actual method of carrying out the boiling operation with soda varies in different works, but it is never conducted under pressure in closed kiers. Subsequently the material is washed thoroughly in readiness for dyeing, which should be proceeded upon without delay, as it is a very bad practice to leave velveteens lying about in a wet condition, because the selvages and other exposed portions of the material become dry quickly, perhaps but partially, at any rate sufficiently to cause the production of uneven dyeings. The dyeing is accomplished for the most part in open vats provided with revolving winches, the material being run in the full-width form. The jigger dyeing machine is also used in some instances. The natural coloring matters—logwood, sumac and fustic—are very largely employed, the salts of iron and copper being used as fixing agents. The sulphur dyes, especially the blacks and browns, are also much favored for bottoming purposes. The direct dyes and the basic also find many applications. The following are a few examples illustrating the methods of dyeing velveteens generally adopted. A bluish gray color is produced from a liquor of about 150 liters, containing 500 gr. sumac extract, 200 gr. haematin, and 100 gr. redwood, in which the material is worked for 20 minutes at a temperature of 60 deg. Cent.; then the dyeing is saddened in a liquor of the same volume, containing about 1 kilo ferrous sulphate, the material rinsed and finally worked in a fresh liquor of haematin (200 gr.) and washed. A foundation like the foregoing can, of course, be modified in shade at will by topping with basic dyes. The sulphur Blacks serve very well for producing a slate bottom for subsequent topping with the basic dyes. By their use it is, however, necessary to wash wet and then to mordant with tannin.—*Fibre & Fabric.*



## NEW PRINTED EFFECTS

By a new process it is stated by the inventor new effects are obtained in printed cloths of the type in which a pattern is produced upon a woven woolen or cotton fabric by a series of printings in colors which strongly contrast with a neutral color, so as to give them the appearance and luster of highly finished woven cloths.

The object is to obtain or vary this effect by first weaving a fabric with an irregular or broken surface, then dyeing the fabric, and afterwards submitting it to a series or combination of printing operations in colors, which strongly contrast with the color of a neutral ground. In this way, an effective design is produced on a thin and durable woven fabric at a comparatively small cost of manufacture.

The fabric employed has a warp and a weft both of wool, or of cotton, or a warp of cotton and a weft of wool; for example, a cotton warp cloth woven, say, a basket weave—that is, say, a two and two, or a three and three twilled hopsack, or celtic, or crepe weave, or a combination of weaves that will produce on its face side a number of small round or elongated protuberances. The cloth is then ground, dyed, or printed on one side with one or more neutral colors which absorb the light, and vary in shade and density in accordance with the final effect desired—and then printed successively in two colors with an irregular design of lines or dots, or zigzag or other broken pattern, the

colors strongly contrasting in luminosity, that is, capable of clearly reflecting the light while the ground neutral color absorbs it. The fabric is steamed and again printed with a definite open-work close pattern in stripe or check in a deep-toned color, to allow the brilliant spots to show through the spaces between the printed parts of the last named pattern as to disguise, tone down, and partly cover the previous spot, zigzag, or other broken printing.

## AN EXAMPLE

A gray cloth with a cotton warp is woven with a surface having an irregular or broken appearance, and which is produced by employing any of the recognized weaves that will give such a surface. Upon the broken-surfaced fabric thus produced a ground is dyed with one or more neutral colors, as, for example, fawn or brown. Although in the weave of the fabric it is desired to produce the broken order of interlacing the warp and weft threads to give it a broken appearance, the dyed ground color requires to extend over the whole surface as an unbroken color.

Upon the broken-surfaced and ground-dyed fabric is printed in two printings an irregular design in a zigzag or broken pattern, or with fine spots, the first printing being in a color which strongly contrasts in luminosity with the neutral dyed or printed ground color, or in a strong color possessing primary or secondary characteristics,

such as a bright or other green—that is, a combination or blue and yellow; the second printing being of a similar design and in purple—red and blue—or with a yellow or an orange.

By a color strongly contrasting in luminosity is to be understood a color capable of clearly reflecting the light while the ground neutral color absorbs it. A strong color is one of the three primary colors, namely, prismatic blue, red, or yellow, or a strong color being one of or possessing the characteristics of the three secondary colors, such as purple, green, or orange. Experiments have shown that of these a strong-colored purple and a strong colored green, or a strong-colored green alone are the best for obtaining the desired effect. The design requires to be small, so as to dazzle the eye, and it has been found in practice that a zigzag design gives a better effect than dots or spots. The printing is done in the ordinary engraved roller color printing machine.

The fabric is steamed, and brought into a fit state to receive clearly the final printing in the next process. The usual steam pressure varies from 3 to 5 pounds, giving a temperature up to about 230 deg. Fahr., which will usually be sufficient to achieve this object.

The fabric is then submitted to a main overprinting process, employing in this case such a deep-toned color as a brown, that will subdue to the desired extent the color of the first, second, and third printings, and at the same time produce the pattern and appearance aimed at. For this purpose it must be a definite

open design—say, in stripe or check—with the spaces so large as to allow the brilliant dots or spots or small zigzag marks of the previous printings to show through the unprinted spaces of the main overprinting but the spaces must not be so large as to allow the eye to see them clearly and separately.

The overprinting is dark-brown intersecting lines, or any other pattern or color which will combine the whole of the previous printings into a design to produce the desired woven pattern effect on the cloth.

The fabric is then steamed and finished in the normal manner, as, say, for coating, or trousering, or dress fabrics.  
—*Posselt's Textile Journal*.

Secretary R. Norris Shreve, of the Dye Section of the American Chemical Society, which holds its meeting in St. Louis beginning April 14, has asked all scientific workers in the field of dyes to present the results of the researches and experiences at the gathering. Papers on the manufacture, properties or application of dyes, both of synthetic and natural origin, will be read, and any chemist having a communication to make is asked to submit to Mr. Shreve, at 43 Fifth Avenue, New York, his subject and the time required for presentation.

## FINAL FORECAST OF INDIA'S 1919-20 INDIGO CROP

The final official estimate of India's 1919-20 indigo crop, while showing an improvement over earlier forecasts, is still 21 per cent below the final 1918-19 figures as to area and 15 per cent below as to yield. Returns for the present crop indicate a total area of 233,800

acres and a total yield of 37,100 hundredweight (of 112 pounds), contrasted with 296,200 acres and 43,800 hundredweight for 1918-19. The season has been generally favorable, except in parts of Madras, and the condition of the crop on the whole is reported to be fair. As presented in the Indian (Government) Trade Journal the acreage and yield by Provinces are:

	—Area—		—Yield—		Average Yield —Per Acre—	
	1918-19 Acres.	1919-20 Acres.	1918-19 Cwt.	1919-20 Cwt.	1918-19 Lbs.	1919-20 Lbs.
Madras .....	149,100	83,300	28,800	18,500	22	23
United Provinces..	49,100	48,800	3,800	4,500	9	10
Bihar and Orissa...	64,200	57,100	6,300	8,200	11	16
Punjab .....	16,500	19,800	3,000	3,600	20	20
Bombay and Sind*.	7,200	8,100	1,100	1,400	17	19
Bengal .....	10,100	11,700	800	900	9	9
Total .....	296,200	233,800	43,800	37,100	17	18

\*Including native States.

American mills consumed 591,725 running bales of cotton (counting round bales as half bales) during January, as against 556,883 bales in January, 1919. The consumption for the six months ending January 31 of the present year was 3,143,201 bales, as compared with 2,950,689 bales for the corresponding period of the previous year.

## BEER FOR BRITISH COTTON MILL OPERATIVES

A new canteen erected at Lowerhouse Mills, Burnley, England, by John Dugdale & Bros., for the use of their workpeople, was opened recently. The canteen opened is in a large hall, built of brick and finished externally with rough cast. It will seat some 300 persons. To meet the principal object of a canteen—a quick and efficient service—the food is served over a long counter on which the various dishes lie ticketed with prices. The diners file past the counter, select what they require and take their meals to their own tables.

A perhaps unusual departure from



customary procedure at these places is the facilities afforded for obtaining beer. The sale of liquor is regulated by a workpeople's club, which has been formed at the suggestion of the firm, and which controls the affairs of the whole institution with the exception of the catering. This is under the direct supervision of Miss Cameron, who obtained a wide experience in this sort of work during the war with the Ministry of Munitions. She is assisted by a permanent staff of seven helpers.

### N. C. TEXTILE SCHOOL GRADS ACTIVE IN BUSINESS

Jesse M. Howard, who for some time was superintendent of the Kerr Bleaching & Finishing Company, Concord, N. C., is now Technical Demonstrator, Dyestuff Sales Department of the E. I. du Pont de Nemours Company. Mr. Howard was for several years overseer of dyeing at the Gibson Cotton Mills, Concord, N. C., and is a graduate of the textile department of the North Carolina State College which is the textile school of North Carolina.

M. Stough, who is also a graduate of the above textile school, is a salesman for the Du Pont Company in Southern territory.

Another graduate, Ralph McDonald, has accepted a position with the Lynchburg Cotton Mills, Lynchburg, Va.

### GERMAN PROCESS FOR ARTIFICIAL WOOL

According to *L'Exportateur Belge*, there is considerable interest in Germany in a patent recently taken out on a process for the manufacture of artificial wool.

In principle, the process consists of compressing wool scraps which cannot be otherwise utilized—shreds, ends, short fibers, washing wastes, etc.—and soaking them in a viscous solution of cellulose or one of its compounds with a small percentage of glue; the product thus obtained is cut into thin sheets and strips, which

can be treated after the manner of paper yarn. The Germans claim that the yarn thus obtained possesses all the properties of real wool. It is made waterproof by treating it in the process of manufacture with compounds of chromium and later with formaldehyde and tannin, after which the product will resist the action of boiling water. The addition of glycerine gives it sufficient flexibility.

This process is now being modified by the mixture with the woolen waste of a certain percentage of paper pulp and treating the product with sulphuric acid and zinc chloride. The addition of various other compounds gives it the necessary flexibility and makes it waterproof.

### NEW OFFICERS FOR NATIONAL COMPANY

At the annual meeting of the stockholders of the National Aniline & Chemical Company, Inc., held February 16, 1920, the following were elected directors for the ensuing year: Orlando F. Weber, H. H. S. Handy, W. N. McIlravy, Dr. W. G. Beckers, Dr. L. C. Jones, C. S. Lutkins, Henry Wigglesworth, W. J. Matheson, T. M. Rianhard, Dr. R. C. Taggesell and F. M. Peters.

At a special stockholders' meeting held on the same day the number of directors of the company was reduced from sixteen to twelve.

The following officers of the company have been appointed by the board of directors: President, chairman of the board and chairman of the executive committee, O. F. Weber; vice-presidents, Dr. W. G. Beckers and J. W. Newlean; acting treasurer, William H. West; secretary, H. F. Atherton; assistant treasurers, H. S. Trott and T. S. Baines; assistant secretary, R. V. Mahon.

A quarterly dividend has been declared of  $1\frac{3}{4}$  per cent for the period ending March 31, 1920, on preferred stock payable April 1, 1920, to preferred stockholders of record at the close of business on March 15, 1920.

## NOTES OF THE TRADE

To act as renovators, dyers, cleansers, etc., the Cleansing Products Company, Inc., has been incorporated under the laws of New York with a capital of \$75,000. Headquarters will be in Manhattan, and the incorporators are A. B. Cline, G. W. Olnany and E. R. Prendergrast.

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The Glendale Hosiery Company has been incorporated under the laws of New York to deal in hosiery and underwear. The capital of the new concern, head offices of which will be located in Manhattan, is \$100,000, and the incorporators consist of S. Mitchell, E. Joseph and H. Eigenfeld.

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By effecting combinations with the former German agents, furnishing the necessary capital and re-establishing the businesses suspended by the Trading with the Enemy act, Japanese firms are rapidly assuming control of the import trade of German concerns which handled dyestuffs and chemicals in that country before the war.

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Under the laws of Delaware, the Delaware-Western Chemical Company has been incorporated with a capital of \$1,000,000. Headquarters of the company, which will deal in chemicals, will be in Wilmington.

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The Keuka Knitting Mills, Inc., have been incorporated under the laws of New York with a capital of \$75,000 to manufacture hosiery and underwear. Headquarters of the company will be located at Hammondsport, that State, and the incorporators consist of R. S. Maker, E. S. Hawley and F. H. Butehorn.

The Linden Dye Works, Malden, Mass., which was recently incorporated with a capital of \$20,000, has taken over the plant formerly occupied by the Franklin Rubber Company, 926 Eastern Avenue. The company will dye cotton and wool yarns. The officers of the firm consist of: George A. Warburton, president; F. E. Evans, treasurer, and S. A. Pelly, clerk. The property purchased comprises a two-story frame building.

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Following his discharge from the chemical branch of the Government service, C. N. Alderman, of Fall River, Mass., has become connected with Arthur D. Little, Inc., Cambridge. Mr. Alderman is a graduate of the Bradford Durfee Textile School.

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Announcement has been made by James A. Moyer, director of the Division of University Extension of the Massachusetts Department of Education, to the effect that a course in elementary accounting will be given in co-operation with the Lowell Textile School. H. E. Ball, a member of the faculty, has been selected as instructor for the course.

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The Canadian-Connecticut Cotton Mills, Ltd., is offering through Boston and New York City bankers \$3,000,000 of 8 per cent cumulative preferred stock. This company is contemplating the doubling in capacity of the Sherbrooke plant, and contracts for machinery have already been made with the H. & B. American Machine Company, Pawtucket, R. I.

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A new machine for cloth laying and spreading is described in British Patent 135,325 issued to J. H. Cutler, of St. Louis, as being of the type which has a table top provided with a track for securing carriage wheels, and turntable relatively mounted. Means are provided for adjusting the carriage to different widths to suit the cloth under treatment and for spreading the cloth face up or down as desired, and for securing the layers of cloth as folded.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 10

March 8, 1920



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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, March 8, 1920

No. 10

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## POINDEXTERY

Indications of the Manner in Which Consideration  
of the Dye Bill Was Prevented in the Senate on  
February 25, Together with Senator Knox's Speech

IT looks as though the Longworth bill might not have to wait so very long before it can be considered by the Senate, after all. In spite of conflicting interpretations of recent developments in the age-old Peace Treaty feud which now appears to be severing long-standing political friendships and even tearing the parties themselves asunder, the opinion seems to prevail that the Treaty will soon be out of its misery, or passed. At the present writing it appears not improbable that its extinction through the machinations of the Senatorial Borgias may be a matter of a few days only. However, there are others who would not be surprised to see it ratified, with more or less in the way of reservations—and we do not feel much like betting anyway.

But as to the Longworth bill, it may be said not to have been considered at all to speak of. The reader thought it had? Ah, then, that is the reader's error. It has been presented, certainly,

but as for being considered—Oh, no! On February 25 it was talked about rather extensively. It was "considered" for about one hour—long enough to allow Senator Watson, of the Finance Committee, who has it in charge, to present it, and to permit of some little argument as to the reasons for and against considering it. But from two o'clock until four, although it was the continuous topic of discussion—save during the time, possibly, when Senator King had the floor—the bill was not "considered" in the official sense, but was merely made the basis of a wrangle as to whether or not it *should* be considered. So now you know.

Senators Poindexter and King, then, did more than merely prevent a vote being taken on the passage of the bill. What they succeeded in doing was to prevent a vote being taken on whether or not the Senate would "consider" it. For all practical purposes it was as good as a mild sort of filibuster, although this does not mean anything so

far as the chances of the bill are concerned. Viewed in the light of broad accomplishment, it was a tempest in a teapot—or a filibuster in a frying-pan, if you like that simile better. Let us “consider” the proceedings:

#### SOMETHING OF WHAT HAPPENED

Mr. Watson—“How does the Senator expect to promote the consideration of the magnesite tariff bill by opposing this bill?”

Mr. Poindexter—“I am not opposing this bill.”

Mr. Watson—“Then I beg the Senator’s pardon.”

There the reader has the whole story in a nutshell. Volumes could not sum up the afternoon’s activities any more comprehensively. Query on the part of Senator Watson, denial and the allaying of suspicion as to motives on the part of Senator Poindexter, renewed insistence that the magnesite bill was just as live a measure and just as important to the country as the dye bill from Senator Poindexter, additional query as to motives by someone else, further denial of opposition, quotations from the House Ways and Means Committee’s report on the magnesite bill, and extra apologies and so on, *ad nauseum*—such was the order of the afternoon.

We were going to make the reader wade through a running account of the happenings, but when the business office began to wonder whether we could stand the loss of so many subscriptions it was decided merely to segregate the significant portions—the really colorful incidents—of the session, and to tell the story in that way. This week we strive rather to entertain than to record after the matter of a hired secretary. So then, all ready there, Mr. Electrician, with that spot-light!

“Mr. President,” said Senator Watson, “I move that the Senate proceed to the consideration of the bill to regulate the importation of coal-tar products. . . .”

Senator Poindexter called attention to the fact that Senator Sherman, of

Illinois, was absent and that he desired to be heard on the bill, which led Senator Thomas to remark that if Senator Sherman expected to return within eight or ten days he would have ample time to be heard. To Senator Kenyon’s inquiry as to whether there was any chance of such an “unusual” bill being disposed of immediately, Senator Watson responded that he had no notion about it, but that Senator Lodge “is exceedingly anxious to have this measure disposed of to-day in order that the Senate might proceed with the discussion of the German Treaty to-morrow.”

More discussion followed which was terminated by Senator Lodge’s reminder that a motion to take up a bill under the circumstances then existing was not debatable and Senator Kenyon’s request for the yeas and nays. Here they are. The names may be interesting as a line-up:

#### YEAS—57.

Ashurst	McKellar
Ball	McLean
Beckham	McNary
Borah	Myers
Brandegee	Nelson
Calder	Norris
Capper	Nugent
Chamberlain	Overman
Colt	Page
Cummins	Phelan
Curtis	Phipps
Dial	Pomerene
Elkins	Ransdell
Fernald	Reed
Fletcher	Robinson
France	Sheppard
Gay	Simmons
Glass	Smith, Ga.
Hale	Smoot
Harris	Spencer
Johnson, S. D.	Sutherland
Jones, N. M.	Townsend
Kellogg	Underwood
Kendrick	Wadsworth
Keyes	Warren
King	Watson
Knox	Williams
Lenroot	Wolcott
Lodge	



## NAYS—11

Culberson	Pittman
Harrison	Poindexter
Henderson	Thomas
Kenyon	Trammell
Kirby	Walsh, Mont.
Moses	

## NOT VOTING—28

Bankhead	McCumber
Dillingham	New
Edge	Newberry
Fall	Owen
Frelinghuysen	Penrose
Gerry	Sherman
Gore	Shields
Gronna	Smith, Ariz.
Harding	Smith, Md.
Hitchcock	Smith, N. C.
Johnson, Cal.	Stanley
Jones, Wash.	Sterling
La Follette	Swanson
McCormick	Walsh, Mass.

there was anything to be gained by going ahead with the bill if there was no prospect of its being passed that day. Further on, he said: "The bill practically amounts to an embargo, as I understand it."

"That is precisely what it is and precisely what is was intended to be," returned Senator Watson.

"That," replied Senator Kenyon, "is a very frank statement. . . ."

Senator Norris, determined to have his little joke, said, referring to that portion of the bill which contains the names in Group II, the dutiable list, familiar to our readers:

Mr. Norris—"I should like to say that I voted to take this bill up because I recognize it must be disposed of. I have no idea that it will be disposed of to-day."

Mr. Watson—"Neither have I."

Mr. Norris—"I think I have an open mind on the bill. Like the Senator from Iowa (Mr. Kenyon), I have been

Senator Kenyon wanted to know if

unable even to read page 3 of it. I think when the Secretary at the desk reads page 3 of the bill the Senate will get a great deal of education and valuable information."

Mr. Watson—"Does the Senator expect to postpone action on the bill until he can read page 3?"

Mr. Norris—"I do not expect the Senate to wait until I can read it, but I expect to hear the Secretary read it. I was anticipating that the Senator might ask that the formal reading of the bill be dispensed with. I would not object to that request as to all of the bill except as to page 3, which ought to be read, and I am going to insist that it shall be read by the Secretary."

Senator Nugent quoted from Mr. Klipstein's testimony before the Finance Committee to show the difficulty of securing adequate yields without long experimentation. Then—

"The hour of two o'clock having arrived," said the presiding officer, "the Chair lays before the Senate the un-

finished business." The clerk announced that this was the Civil Service Retirement bill. Senator Sterling requested that the unfinished business be temporarily laid aside.

Now mark you. Under the rule of the Senate, unfinished business at two o'clock automatically displaces whatever may be under "consideration" in the official sense, unless the consent of the Senate to proceed with the matter in hand can be obtained. It was at this point that the bill lost its official status as a measure being considered by the Senate, which status it never regained. This rule of the Senate gave Senator Poindexter the opening he had evidently awaited. Before his opposition was launched, however, Senator Jones, of Washington, referred to Senator Thomas's statement that it would be days before the bill could be passed:

Mr. Thomas—"I want to quiet the apprehensions of my friend the Senator from Washington. I expect to speak at some length upon the bill and in opposition to it. That was the reason for the statement I made."

Mr. Jones of Washington—"That will be interesting to the Senate."

Mr. Thomas—"It will probably be neither interesting nor profitable."

Mr. Jones of Washington—"I do not agree with the Senator on that."

Mr. Thomas—"But I think it is my duty to speak on the bill. Of course, it will interfere with the passage of the bill to-day unless we hold a night session."

But Senator Sterling would not be denied, and the discussion terminated by Senator Watson saying: "Then I move that the Senate proceed to the further consideration of House Bill 8078, the dyestuffs bill." From that time until the Senate adjourned, that motion was before the session, to be withdrawn by Senator Watson at the very end when it was seen that Senator Poindexter's opposition to its consideration had been successful.

The latter got under way early. After declaring that Senator Watson had stated the advantages of the bill

very convincingly, he said: "I do not think that anyone could very successfully dispute his proof of the merits of it. There is another tariff bill that is pending in the Finance Committee upon which just as convincing a demonstration of its need and of the emergency of the industry which is intended to be met by it, can be made. I refer to the magnesite bill."

From then on there was nothing, as we may say, to it. Consider, therefore, as indicative of the general trend of argument, the following extracts and high spots culled from the debate. They are more or less disjointed by reason of wide omissions, but they serve to enable the reader to form some idea of the sentiments of the various Senators.

Senator Frelinghuysen said that his chemical glassware bill, which was important, had not yet been reported, but that he was not complaining and thought the Senate should dispose of the dye bill without further delay.

Mr. Watson (referring to a Poindexter objection)—"Of course, there are a number of other members of the committee—and some of them have different views—whom I am not able to control; but, for my very life, I cannot see why the Senator, believing in the merits of his proposition, should object to this proposition, which is being tested here on its merits. If the two stand exactly alike, on a common ground, and one is just as meritorious as the other, why should the Senator object? Is he

not putting himself in a dangerous position, for when his proposition comes up somebody will object to it, just as he is now objecting to this?"

Mr. Poindexter—"Mr. President, I do not object to any meritorious bill of this kind. Such measures should stand upon the qualities which they severally possess; but it has been admitted by the Senator from Indiana that he agrees with me as to the merits of the magnesite tariff bill. One of the essential elements of the policy of protection is that it should operate uniformly for the protection of all the people in any legitimate industry."

Later on—

Mr. Poindexter—"I expect to vote for this bill if we are compelled to vote. I believe that it is a meritorious bill, but I am insisting that we shall have an opportunity, through the medium of a report from the Finance Committee placing it upon the calendar, to vote also upon the magnesite bill at an early date. I object to discriminations; I object to affording an opportunity to vote upon a measure for the benefit of a certain section of the country, or for the benefit of those companies which by reason of their investment in the dye industry are concerned in this bill, and denying a similar opportunity to other great sections of the country and to people whose investments are in magnesite."

Senator Poindexter then spoke at  
(Continued on page 12.)



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A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

### "FOR THE GOOD OF THE SERVICE"

It is hardly to be expected that the average banker, lawyer, merchant or business man, unless his particular calling has concerned itself in no desultory way with the science, can fully grasp the peculiar importance which the single factor of continuous application on the part of an individual bears in relation to real advancement in chemistry.

It is realized by all of these, of course—be they familiar with the chemistry or not—that the longer the right kind of an executive is allowed to handle the affairs of his own department, the more rapidly will that department expand, the greater the number of the telling improvements which will be introduced, and the higher the efficiency which will be obtained. They are willing to allow, no doubt—if they think about it at all—that this law holds true, generally speaking, in the chemical research laboratory, but it is safe to say that not one out of a hundred, unless he has been brought into direct contact with matters chemical at some time, is aware that this single factor has contributed more new chemical discoveries than has that quality which we call genius.

If the average business man cannot be expected to realize this, how much less can we look to the professional politician for recognition of its truth!

The War Department has just issued an order whereby Major-General W. L. Sibert has been deprived of the command of the Chemical Warfare Service, and has been placed in charge of Camp Gordon, near Atlanta.

Asininity in the administration of this

all-important branch of the service could go no further. The act may without hesitation be characterized as crass stupidity—or more, or as unpardonable ignorance—or worse.

Civilian direction of military bodies is bad enough, but in lay direction of chemical organizations one has the *ultima thule* of ultimate disaster. Possibly the authorities which ordered the transfer—incidentally placing a Lieutenant-Colonel in charge of the C. W. S.—can furnish a logical explanation of the action—can point out what great gain will come to the service through removing from command a man who has demonstrated his abilities in the most striking fashion, and whose knowledge of the as yet hidden potentialities was probably exceeded by that of no other in this land.

If there be an explanation to offer, it should be forthcoming. We are sure that the chemists of the country can see nothing but damage to the service—or at the very least, a serious interruption to continued progress—as a result of this arbitrary shift.

### DR. HERTY ON SENATE DYE DISCUSSION

#### Praise for Knox's Speech and Watson's Presentation

One of the characteristics of the word "dye" is a begetfulness of unlimited oral expression. In the Senate the word naturally fell upon congenial soil. It was scarcely a matter of surprise, therefore, that on the single day, February 25, set aside for the consideration of the Longworth bill, prior to the reopening of the Peace Treaty discussion, no decisive vote should have been reached.

It had been hoped that in view of the unanimous report of the subcommittee, followed by a similar unanimous report by the Finance Committee, the Senate might proceed to a quick passage of the bill. This hope was in vain.

The clear indication of the strength of those favoring the bill was given at the very outset when an effort to refuse

to take up the bill commanded only 11 votes. The discussion was opened by a masterly presentation of the subject by Senator Watson, of Indiana, chairman of the subcommittee. In spite of the technicalities of the subject Senator Watson showed how attentively he had listened to all of the testimony presented at the hearing. His plea for the speedy passage of the bill was straightforward and convincing. The many questions asked him by fellow Senators indicated the keen interest in the subject, though considerable doubt was created as to whether the questions by Senator Kenyon, of Iowa, were prompted by desire for knowledge or for the purpose of delay.

The treatment of the bill in the Senate was thoroughly non-partisan and it was particularly interesting to note the complete intermingling of Republican and Democratic Senators in the neighborhood of Senator Watson when he spoke.

One of the most perfect contributions

of the day was the brief but eloquent speech of Senator Knox, of Pennsylvania, whose support of the measure as an important contribution to national security was unqualified.

Senator King, of Utah, surprised all by presenting the novel argument that it was unpatriotic of American manufacturers to ask for protection against the German dye interests and thereby cripple Germany in its effort to again get upon its feet.

More than an hour of the limited time available was lost through the efforts of Senator Poindexter, of Washington, to utilize the situation so as to force from the Finance Committee a report to the Senate of the bill protecting magnesite, which bill had been voted on favorably by the committee but not ordered reported to the Senate.

At the conclusion of Senator Watson's speech adjournment was taken and according to the program previously announced by the leader of the Senate the Peace Treaty will now be continu-

ally before the Senate until it is disposed of. The Longworth bill, therefore, must wait. However, you never can tell. The unexpected may happen at any moment.—*Journal of Industrial and Engineering Chemistry*.

### POINDEXTERITY

(Continued from page 9.)

great length on the magnesite bill and the reasons why it should be considered at once. He quoted hugely and voluminously from the report of the House Ways and Means Committee on the measure. A portion of his remarks toward the conclusion of the speech is interesting. He said: "If the necessity is forced of voting upon this bill (the dye bill) alone and separately and without having an opportunity to vote upon the other bill (the magnesite bill), I shall vote for it, because I believe it is meritorious, but I shall not do it without protesting against the denial of the same privilege to those who are interested in the magnesite bill."

Then followed a period while Senator Poindexter cross-examined Senator Smoot as to why the magnesite bill had not been reported out of the committee, with the latter declaring that there were good reasons which he would make clear at the proper time. To every argument that the dye bill was an emergency measure, Senator Poindexter stoutly defended his contention that the magnesite bill was just as much of an emergency measure, and just as much entitled to the Senate's consideration. Senator Moses interposed at one time to register his own inability to see why a differentiation had been made by the Finance Committee.

Senator Smoot contended that the proponents of the magnesite bill were not anxious for immediate action, while Senator Poindexter said that they desired it to be reported out at once and placed upon the calendar. Senator Smoot retorted that they must have changed considerably in their sentiments

since the preceding morning, and Senator Poindexter declared that they had changed and that Senator Smoot need have no apprehensions but that he would learn of this change. He then quoted more from the House Ways and Means Committee's report on the bill.

Now we come to a new phase of the discussion. Senator Poindexter, continuing his discussion of the magnesite bill, quoted a long extract from the House Ways and Means Committee's report on the bill.

At last Senator Watson managed to gain the floor from Senator King, who had begun a lengthy discourse on the tariff principles of the Republican and Democratic parties.

"I wish," said Senator Watson, "to call the attention of the Senator from Utah (Mr. King) to the fact that the subcommittee report to the full committee on the dyestuffs bill was unanimous and that the full committee report to the Senate was unanimous. There was no partisanship whatever involved in the discussion, nor can there be any, unless the Senator from Utah and other men like-minded seek to drag partisan politics into the discussion. There is not any partisanship in the proposition."

But this did not serve to deter Senator King from the course which he had only too evidently laid out for himself to follow. Perhaps a good line on his oration may be taken from his own words which occur somewhere about the middle of the speech: "But I am not discussing the pending bill nor the reasons assigned to justify its passage. I express no opinion at this time concerning its merits. . . ."

Senator King was right. He was not discussing the Longworth bill. He confined his remarks more exclusively to the statement that the Democratic party approached the November election with confidence and that the people would certainly entrust it with the guidance for another four years of this mighty republic!

Then followed Senator Knox's speech, which we reproduce in full:



SENATOR KNOX'S SPEECH ON THE  
DYESTUFFS BILL

"Mr. President, I do not wish to appear odd, but the few observations I intend to make will be about the measure that is before the Senate, namely, the dyestuffs bill.

"I am willing to start from the premises laid down by the President of the United States in his message to the Congress, and that is upon the theory that one thing that we have learned, if we have learned anything, out of the grievous experiences of the past four years, is that the forces that held the legions of civilization at bay and almost overcame them were the spectacled chemists of Germany. I agree with the President that as a measure of preparedness it is essential that there shall be built up and maintained in this country a dye industry unsurpassed by that of any other country.

"I do not propose to advance the ordinary arguments that have been used to support that proposition, but I am satisfied that if Senators will pause to consider they will agree with me that the whole face of the world has been changed by the creative or synthetic chemist within the last 10 or 15 years. We have at last discovered a fundamental truth, and that is that anything that we can analyze accurately and ascertain its constituent elements, that thing we can create. I was told by an eminent chemist not long ago, 'If you give me a water power and a mountain of limestone, I can almost put the farmer out of business. I can make starch; I can make sugar; I can make other foods essential for the maintenance of mankind.'

"Mr. President, this country, with its vast wealth, with its rapid progress, with its enormous population, and the speed with which we have been moving along the pathway of civilization, has overlooked many of the things which seem small, but which, when you come to examine them critically and carefully, are perhaps among the greatest of our assets.

"Why was Germany in the position that her chemists have achieved much more than the chemists of this or any other country? The simple fact is that in Germany they do not burn their coal; they roast it. They make coke as a fuel, and they utilize their by-products for their chemical purposes, and especially for the manufacture of dyes. In Germany there is not a single beehive oven. A beehive oven is the old-fashioned oven in which the coke is burned, and the gases and the smoke escape into the atmosphere. In the United States probably not more than half of the coke that is manufactured is manufactured in the by-product oven that is used exclusively in Germany. I would amaze you if I were to read to you the value of the by-products which pass off from these beehive ovens in the United States and pass up the smokestacks of the factories, where the gases and the other by-products are not utilized.

"I have here a table taken from the testimony that was given before the committee, which shows the total amount absolutely wasted in the course of a year to be in value \$930,188,000. It is given by States, and if there is any Senator who is curious to know the loss in his own State, I shall be only too glad to read it. Referring to the State of Utah, for instance, the loss there is \$9,999,000. It runs from four to eight and ten million dollars in the various States, up to the State of Pennsylvania, where the loss is \$329,000,000 per annum.

"Although the products of destruc-

five distillation vary within wide limits, yet the following table may serve to give an approximate idea of what may be got from a ton of soft coal:

"From 1 ton of soft coal you get 12,000 cubic feet of gas; liquor (washings), ammonium sulphate, 7 to 25 pounds; tar, 120 pounds, from which when redistilled we get benzene, 10 to 20 pounds; toluene, 3 pounds; xylene, 1½ pounds; phenol, one-half pound; naphthalene, three-eighths of a pound; anthracene, one-fourth pound; pitch, 80 pounds, and coke, 1,200 to 1,500 pounds.

"While those are the products of a ton of coal, and there are only 8 to 10 of them in number, yet the chemists will make tens of thousands of articles out of these products by the synthetic process. They make the explosives that kill, and they make the medicines that cure.

"Take a cord of wood, for instance. A cord of wood, 128 cubic feet, is subjected to a process of destructive distillation and yields, first, 50 bushels of

charcoal, 11,500 cubic feet of gas, 25 gallons of tar, 10 gallons of crude wood alcohol, and 200 pounds of crude acetate of lime.

"Mr. President, if this measure were a project to invest a billion dollars of Government money for the purpose of building up an industry that would save a billion dollars a year and be a great factor in our preparedness against another destructive war, I would favor it; but it is not that. The gentlemen who propose to build up these industries propose to do it at their own expense, and all that they ask the Government of the United States to do is to prevent for a period of three years the importation into this country of such dyes as are made here in merchantable quantities. The proposition is reasonable. It has nothing to do with the tariff. It is not a question of tariff legislation. It is a question of wise, farseeing preparedness and of wise, farseeing economy."

Now, one more readjustment of the spotlight, and the story is told. Observe:

The Presiding Officer (immediately upon the conclusion of Senator Knox's speech)—"The question is upon the motion of the Senator from Indiana (Mr. Watson) that the Senate proceed to the consideration of H. R. 7078, to regulate the importation of coal-tar products. . . ."

Mr. Watson—"I suggest the absence of a quorum."

(The roll was called and fifty-four Senators answered to their names. Senator Watson addressed the Senate on

the bill; his speech will be considered next week.)

The Presiding Officer—"The question is upon the motion of the Senator from Indiana that the Senate proceed to the consideration of House bill 8078."

Senator Watson—"I withdraw the motion."

(Quick curtain.)

## CARDS AND CARDING

*(Concluded from last week.)*

### BEST TYPE OF MACHINE

In his opinion the type of machine used for moderately long crossbreds was not the most suitable for short, fine wool, especially those requiring much opening. Certain classes of wools had a good lot of small locks in them about the size of a large pea. For a wool of this character the large diameter worker or stripper, in his opinion, was not the best. He preferred four or five small workers, so that instead of seizing the small locks of wool three times as they passed around the swifts seized them five times, and had a less period of contact owing to the smaller diameters. By adopting this method the staple of these short wools would escape the harsh treatment of the large worker, would be better and more gently opened and consequently the length of staple preserved to the greatest possible extent. This method of working was favored on the French type of card. They got a longer staple by this method than would be possible with three 12-inch workers.

In many instances cards did not keep up their efficiency for various reasons, such as not being set correctly, not enough point on clothing, clothing in bad condition, or the teeth might be too straight, due either to being too weak for their work or to not being ground sufficiently often, which allowed them to get out of position, whereas frequent grinding helped to keep the bend of the wire more to its normal position.

### CHOICE OF CARDS

By making a card keen they could not make it stand. The best card was

the one with square counts and an equal number of teeth on each side, so that each point stood at an equal distance. If they got a card too full and got two teeth together, they got a very coarse card, and there was nothing worse than two teeth being together. Nothing brought the teeth together more than fettling with plates. He recommended the use of the cleaning card, which was flexible and the card clothing would last much longer than if plates were used for cleaning, and it would retain its condition much better.

The double convex card had been a boon to the trade because it had allowed the card to be made thinner, to have a full crown, and at the same time retain the strength of the wire. When they had a full crown they had a small convex wire for crossbreds, and a big range of qualities such as a small plant required.

In the past, and especially during the last few years, when a bigger output had been sought, it had been



found necessary to increase the strength of the wire of the clothing on the front part of a card, and although that increase had only amounted to 7/1000, it had enabled the clothing to stand the extra work put on it, thereby not affecting the finer clothing on the last part of the machine, which was so desirable in order to obtain good work.

It was only by constant elimination of weak points such as these by the card marked (and he might say in passing that his firm had given a great deal of attention to these things) that they could obtain the best results.

### THE ALKALI BOIL

By LOUIS M. TAILFER, in "L'Industrie Textile"

Boiling-out cotton goods may be accomplished by either of two methods. In the older process it is done in open boilers, and to keep the material submerged a relatively large quantity of lye is used. At a later date closed kiers were adopted in order to keep the heat in better, and to boil under pressure at a high temperature. Circulation is effected by steam injectors which heat the lye, but through condensation are liable to dilute it. More active circulation is obtained by centrifugal pumps. About 1885 Messrs. Mather and Platt introduced another method of boiling out, which consists in using a small quantity of lye, much more concentrated, and giving it a forced circulation through the material. The kiers which bear their name give a large output and excellent results in practice. Koechlin also suggested a process using a small quantity of lye. This worked

out a similar process, but with a variation, and made a very complete study of the phenomena of boiling-out with a short lye.

The Thies Process.—The Thies process differs from those already known, and particularly from Koechlin's in the fact that the treatment with carbonate of soda and that with caustic soda are given separately. The result of this is that the caustic lye can be used at a height of temperature and degree of concentration hitherto unattainable because there were no means of protecting the cotton fiber, whereas in the Thies process this preservative action is furnished by the preliminary treatment with soda and steam. By means of this preliminary treatment the use of very concentrated caustic lye is rendered possible, and without danger to the fiber; it has an energetic action of short duration. Moreover, the use of boiling caustic-soda lye diminishes the mercerizing effect on the fiber and the contraction that would be the result of the use of cold lye. As a third distinctive feature of the process of Thies as compared with preceding methods, and in particular that of Koechlin, it should be noted that the action of the boiling caustic lye is kept up almost constantly during the whole duration of the boil. Thus the tendering action of the lye is prevented by its saponification, as a result of drawing off the steam in the course of operation. This evacuation of the steam not only gives a rapid circulation, but keeps up the concentration of the lye. The process is in four complementary stages:

1. Separate treatment of the fibers with alkalis (carbonate of soda).

2. Treatment with steam after No. 1.  
3. Treatment of the fibers, after they have been freed from imprisoned air, with boiling caustic-soda lye.

4. Concentration of the caustic-soda lye by means of a special device giving constant circulation.

The actions of these successive steps complete the process reciprocally, and are justified by the following considerations:

(a) The fibers contract in cold caustic lyes according to their degree of concentration, and if the lye is very strong, mercerization results. This contraction does not take place in the boiling solution. In the cold bath even diluted caustic-soda solutions act in the same way in filtering through the layers of cotton. These are not mercerized by the boiling lye.

(b) By the presence or introduction of air into the kier, or if it is imprisoned in the fibers or introduced with the steam, the boiling lye has a destructive action on the fiber in the presence of oxygen.

(c) The alkalies precipitated on the fiber by the alternate action of caustic alkali and alkaline carbonate cannot be removed by boiling water and steam. They cling to the fiber during steaming, and give strong indications of catalytic action.

(d) By greatly diminishing the volume of the lye a uniform circulation is set up if the lye and the steam traverse the material rapidly and together, and can be separated below the goods.

The liquids collect by gravitation in

the lower layers of the goods, and are drained out. Only a pump can put these filtering liquids into circulation, whereas the boiling liquids cannot be aspirated, because of their vaporization.

The rapid circulation of the lye is set up by the extraction of the steam at the bottom of the kier and by the removal of the lye by means of a pump, and by the addition of lye at the top of the kier over the goods under treatment the uniform division of the lye is thus obtained, and also the mixed circulation of the lye and the steam, and the uniformity of their action.

In the boiling kiers the fibrous materials impregnated with liquid fill a space which is four times that of their specific bulk. For instance, if the destiny of cotton is 1.5, then 1,500 kilogs. occupies a volume of 4,000 liters, of which 3,000 liters is liquid. In the old processes of boiling-out, therefore, it needed 3,000 liters of lye for 1,500 kilogs. of cotton; and if, for instance, 50 kilogs. of Solvay soda were used, hardly a 1 per cent solution was obtained. In the Thies process only 500 to 600 liters of lye was used, which by boiling with resin soap gives a concentration corresponding to a 6 to 7 per cent soda solution.

*(To be concluded.)*

To engage in the manufacture of and working of silk, silk yarns and kindred materials, Benjamin Buckley's Son, Inc., has been incorporated under the laws of Delaware. The capital of the company is \$100,000. Headquarters will be in Wilmington.

## NOTES OF THE TRADE

Under the laws of New York the Virgo Chemical Company has been incorporated with a capital of \$20,000. Headquarters will be in Hamburg, that State, and the incorporators are W. C. Young, D. D. Temple and J. F. Dominski.

Atlantamine Brown 2G is one of the latest colors produced by the Atlantic Dyestuff Company; this color very closely approaches in shade and properties Benzo Brown D3G Extra, which was perhaps more widely used in this country prior to the war than any other direct dyeing cotton brown.

With a capital of \$100,000 the Fashionit Mills have been incorporated under the laws of New York to manufacture hosiery and underwear. Headquarters of the new enterprise will be located in Manhattan, and the incorporators consist of J. L. Lefkowitz, L. N. Halperin and O. R. Wertheim.

Announcement has been made by Marden, Orth & Hastings, Delaware, chemicals and dyestuffs, of the authorization of this corporation with 20,000 shares of common stock, no par value, to begin business with ten shares. The representative is M. S. Orth, 136 Liberty Street, New York City.

Under the laws of Delaware the Textile Oil Corporation has been incorporated with a capital of \$2,000,000 to act as chemists. The incorporators consist of W. S. O'Keefe, George Steigler and E. A. Aberle, of Wilmington, and headquarters will be in Dover.

The Diskan Paint Company, of Philadelphia, has given legal notice of the

intention to apply to the Governor of Pennsylvania for a charter to manufacture, buy and sell glass, oil, varnishes, enamels, dyes, bronze powders, colors, paints and kindred articles.

The Cheesman-Elliott Company, Inc., has been incorporated under the laws of New York with a capital of \$450,000 to engage in the manufacture of paints and varnishes. The head offices of the new company will be located in Manhattan, and the incorporators consist of F. P. Cheesman, N. Elliott and J. F. Case.

According to a recent report, the total consumption of dyes in England to-day is considerably greater than it was in 1913, with not less than 80 per cent of this total being produced in English factories.

To encourage the native French color producing industry and incidentally to take in hand the distribution of German reparation dyes, a company with a capitalization of \$200,000 has been incorporated in France. Of this sum, half has been furnished by color makers and half by color consumers.

To manufacture textiles, the H. Lee Mallory Company has been incorporated under the laws of New York with a capital of \$100,000. Headquarters will be in New York City, and the incorporators consist of D. L. Mallory, W. B. Phillips and A. Mallory.

The annual meeting of the National Association of Cotton Manufacturers will be held in Boston on Wednesday, Thursday and Friday, April 21, 22 and 23. The headquarters of the association will be at the Copley-Plaza, where all sessions will be held.

The Nutley Color Company, of Nutley, N. J., has filed notice of organization to operate at 664 Franklin Avenue, that city, for the manufacture of chemicals, colors, etc. The president of the company is Louis G. Patelle.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 11

March 15, 1920



THIS IS THE  
MARCH EXPORT NUMBER

## **The World Loses**

Foreign as Well as Domestic Consumers of Coal-Tar Products Would Benefit Through Speedier Action on the Longworth Bill

## **Thirty-Six Countries Purchased U. S. Aniline Dyes in January**

## **List of Reparations Dyes Held Up in Amsterdam**



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, March 15, 1920

No. 11

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## THE WORLD LOSES

**Lack of Knowledge Is Basis of All Arguments that War-Protection Makes Immediate Action on the Dye Bill Unnecessary**

**S**OON it will be a year since the Longworth bill, which is to permit the United States to develop her coal-tar chemical industries to a point where she could supply the world with these products, if necessary, was submitted to the Congress. By the time this issue of the REPORTER has reached our friends in other countries, the matter of the Peace Treaty will probably be settled and the dye bill may be a law. But it should have been a law many months ago, and the world has been the loser by reason of the delay.

It is a remarkably easy thing to sit still and criticise the efforts of others who are conducting the affairs of a nation. It is so easy that all of us, until the end of time, will have to listen to far more adverse comment, exasperating and hurtful, than constructive suggestions. The former calls for almost no mental effort, but if all public utterances on any course of action whatever were compelled by law to consist only of attempts to point out better and more practical ways of accomplishing

things, and if the penalty of absolute silence were to be imposed on all who did not honestly essay this, there would be a great deal less in the way of printed matter in the world than there is to-day.

This publication, therefore, abstains from needlessly and futilely criticising those who have had the Longworth dye bill under consideration all these months. It must be remembered that the committees of Representatives and Senators upon which so much depended have been face to face with a subject which is even now far less understood by public officials than it is in Germany, for instance. The task which confronted them, in view of their almost total lack of familiarity with the role of synthetic organic chemistry in modern national advancement, was stupendous, and to-day, after many hours devoted to the hearing of testimony by experts, there are some who have failed utterly to grasp the fundamental significance of the problem.

Yet there is nothing to be gained at



this stage of the proceedings by raw criticism, which would not hasten the progress of the bill by so much as a minute. There is nothing to be gained now by an attempt to suggest improvements in the manner finally selected for the protection of the United States dye industry, for the embargo plan appears to be the final compromise between the licensing of dye imports and the application of a mere high tariff, which could not hope to answer the purpose. It appears to be the final compromise with representatives of the great mass of people who as yet do not understand the importance of this nation's potential coal-tar chemical industries and who, bound down by precedent and lack of education in this—to them—new thing, would think their representatives suddenly gone mad if they ventured to impose duties of from two to three thousand per cent upon any products imported by the United States.

It is not possible nor desirable to blame these representatives of the people. Many there are, no doubt, who, seeing the light plainly themselves, have been restrained from taking the action they would have preferred by the knowledge that their constituents will not understand for a long period—even years—the reasons for so radical a step. It takes a much longer time to spread such education as will be necessary through a nation than it does through a small group such as the Congress of the United States, and as yet but little has been done to place the true facts before the people. Long before these facts could be disseminated and absorbed, these representatives would be removed from office as madmen—and so would any who followed with similar ways of expressing their views. The personal factor or previous ability of the "offenders" would have nothing to do with the inevitable outcome. The same would happen were these representatives supermen—the greatest and most far-seeing legislators that the world has ever known. But, happily, they are not obliged to express themselves by the imposition of a three thou-

sand per cent tariff—and hence the compromise, which will offend no one, which will injure no one and yet which will accomplish the purpose.

So much for the attitude of those representatives who understand the conditions but have been timid about expressing themselves openly as favoring radical measures for the protection of the United States dye industry. It is becoming clearer every day that the case of these men could have been helped materially by a campaign of education inaugurated two years ago by the dye manufacturers. This, however, would have cost more than it would have seemed practicable to invest on the then doubtful hope that the necessary future protection would be extended to the dye industry; nevertheless, we repeat that both the task and the education of the legislators who to-day are deciding the fate of the industry would have been rendered vastly easier and quicker had such beneficial propaganda been considered possible. There have been some excellent attempts made, and notable always will be the efforts of the National Aniline & Chemical Company, through its travelling exhibit for consumer education. But it is safe to say that the press of the country, which is in the long run the least expensive and by far the most effective medium, is still overwhelmingly ignorant of the real reasons why the dye industry must flourish in this country. It is perfectly plain that where the proper protection has been editorially advocated, the writer has fallen into his correct conclusions in the great majority of cases more through sheer good luck than good management—or else his political faith has coincided with that of the legislators advocating protection. This sort of presentation of the case does not help in the education of the public to any great extent, and had the people of this country, ninety-nine per cent of whom still entertain the vaguest of notions regarding the potential role of the dye industry in their national life, been fully informed in words of one syllable, there need have been no doubt in the

minds of their representatives as to the proper course to follow.

As for those legislators who, being placed in direct contact with the true facts, have failed to comprehend them—why, there is nothing to be gained by criticising them, either. To make fun of their manifest bewilderment—remarkable though it is—would be to increase their enmity toward the measure, and while it is extremely doubtful if these puzzled Senators are numerous enough to threaten its coming enactment, yet there is quite enough of hard feeling in the world as it is, without adding needlessly thereto.

Through all the deliberations, the bugaboo of the Peace Treaty struggle was ever before proponents of the Longworth bill as a bar to early action. But the Peace Treaty, bless its silvery split hairs and its bent and unratified form, has maintained its position several jumps ahead of the dye measure throughout the months. In the event of an actual race for possession of the

floor of the Senate, the Treaty, it goes without saying, is paramount, but the length of time consumed in remoulding the dye bill into a shape which would allow it at least a rich man's or a camel's chance has, until February 25, prevented such a race. And now that the two are at last in line for consideration together, the remaining days of the Treaty struggle will be as naught compared with the days already lost. That bugaboo has disappeared, and it is doubtful if it ever existed, for there was plenty of time between the defeat of the first effort at ratification, and the present attempt, to permit of a dozen dye bills being debated and passed.

All things considered, then, the best that now can be done is to say, blaming no one, that the delay has been unfortunate—and let it go at that. It is hard to believe that it was wholly necessary, but if such is the case the dye manufacturers and consumers may congratulate themselves upon the excellent

*(Continued on page 12.)*

**AMERICAN DYESTUFF REPORTER**

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 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

### THIRTY-SIX NATIONS BOUGHT U. S. ANILINE DYES IN JANUARY

During the month of January, manufacturers of and dealers in dyestuffs in the United States sold to foreign customers \$1,052,838 worth of their products. Of these, the aniline dyes accounted for \$737,853 of the total, log-wood extracts for \$74,725, and "all other dyes" for \$240,260.

To readers in other countries, no less than to our own dye men, an analysis of these totals, showing where and in what quantities the aniline dyes went, should be of great interest.

Of the \$737,853 worth of aniline colors purchased abroad, Japan was by far the heaviest consumer among the thirty-six countries which found a use for these colors. The amounts paid for these aniline dyes run all the way from the Flowery Kingdom's contribution of \$295,634, down to Hayti's, whose customers—or customer—rolled up the lordly total of \$5. The ten countries which bought the greatest amounts, in the order named, were: Japan, China, France, British India, Mexico, Hong Kong, Belgium, England, Brazil and Italy. Between these and Hayti we find Chile occupying the twelfth place on the list; French East Indies, sixteenth; Australia, seventeenth; Cuba, twentieth; Switzerland, twenty-second; Sweden, twenty-sixth; Spain, twenty-eighth; Turkey in Asia, thirty-first; Peru, thirty-second, and Guatemala, thirty-fifth—all of interest.

The first ten countries bought a total of \$672,900 worth of aniline dyes, ap-

portioned as follows: Japan, \$295,634; China, \$132,831; France, \$42,201; British India, \$40,513; Mexico, \$38,836; Hong Kong, \$33,438; Belgium, \$30,426; England, \$21,775; Brazil, \$20,338, and Italy, \$16,908. To these countries went the great bulk of United States exports of aniline colors, their combined purchases amounting to over 91 per cent of the value of all anilines.

The countries which ranked eleventh to twentieth, inclusive, in the amounts of their purchases, absorbed U. S. aniline colors worth \$54,870. Of these, the Philippine Islands and Chile ran a close race for eleventh place, the former winning out with \$10,991 and the latter following with \$10,237. Then in the order named came: Ecuador, \$7,215; the Netherlands, \$6,620; Argentina, \$5,341; French East Indies, \$3,288; Australia, \$3,143; Salvador, \$2,840; New Zealand, \$2,683, and Cuba, \$2,512. These countries of the second ten purchased only a little over 7 per cent of the aniline colors exported by the United States, by value.

Of the third ten countries, which together bought \$9,225 worth of U. S. aniline colors, Portugal easily led the field, being safely in twenty first place with \$1,823, while Switzerland occupied twenty-second place with \$1,220. The remaining eight lined up as follows: Venezuela, \$1,212; Colombia, \$1,001; British East Indies, \$943; Sweden, \$932; Nicaragua, \$636; Spain, \$560; Trinidad, \$458, and Panama, \$440. These countries bought a little over 1 per cent of the January U. S. aniline color exports, by value.

Thirty-first place for January is occupied by Turkey in Asia, leader of the final six which together bought but \$858 worth of our aniline colors. Turkey in Asia spent \$470 in this country, while the others filled their needs as follows: Peru, \$168; Newfoundland, \$90; Uruguay, \$70; Guatemala, \$55, and lastly, in thirty-sixth place, Hayti, which bought \$5 worth. These countries used something like eight-tenths of 1 per cent of the total U. S. exports of aniline colors, by value.



The foregoing figures are doubly interesting because while showing where our present dyestuff markets are, they also show up the weak places and indicate clearly to exporters where there is work to be done. Next month the February figures will be compared with those above.

#### LIST OF REPARATIONS COLORS NOW HELD UP IN ROTTERDAM

**Textile Alliance Lists German Dyes, Destined for U. S. Consumers, "In Dutch"**

The Textile Alliance, Inc., has received information that there are 543 separate consignments of German dyestuffs now detained at Rotterdam because of the longshoremen's strike at that port. Among such consignments are substantial quantities of the following dyes manufactured by the following concerns:

*Badische Aniline & Soda-Fabrik.*

—Rhodamine G, Victoria Pure Blue B O, Brilliant Indigo B Powder, Anthraflavone G C Paste, Indanthrene Blue G C D Double Paste, Indanthrene Blue G C D Double Paste sandfree, Indanthrene Blue R S Paste, Indanthrene Blue R S Paste Double, Indanthrene Blue R S for paper paste sandfree, Indanthrene Brown B Double Paste sandfree, Indanthrene Brown R R Powder, Indanthrene Golden Orange G Paste sandfree, Indanthrene Golden Orange G Double Paste sandfree, Indanthrene Green B Paste Double, Indanthrene Green B Double Paste sandfree, Indanthrene Grey B Double Paste, Indanthrene Grey B Double Paste sandfree, Indanthrene, Maroon R Paste sandfree, Indanthrene Orange R T Paste, Indanthrene Pink B Paste sandfree, Indanthrene Red R Powder, Indanthrene Red R Double Paste, Indanthrene Red R Double Paste sandfree, Indanthrene Red Violet RRN  
(Continued on page 12.)







## THE WORLD LOSES

(Concluded from page 7.)

chances of the compromise which has resulted. But the world has been a loser, just as it has been a loser by the Treaty deadlock.

This is what so many who have argued against speed in acting upon the Longworth bill have been unable to understand. They have repeatedly argued, when urged to do something about it, that as long as the Peace Treaty remains unratified, the dye industry is protected automatically by the various war measures which will continue in effect until the Treaty matter is settled—as though that answered all objections!

This publication has endeavored to point out, time and again, that just so long as American dye manufacturers are kept in a state of uncertainty as to their future status, by just that much is the completion of the long task of providing this country with a self-contained coal-tar chemical industry postponed, and by just that much is our future peace and security jeopardized. In plain, unvarnished English, those who believe there to be no necessity for quick action, and who hinder the consummation of that action, hold back our scientific and industrial progress among the nations of the world.

If it so be that delays are necessary, then they are necessary and must be borne. But we hold that a complete knowledge of the facts is unassailable evidence that the proposition that the time when action is taken makes no difference, is worthless.

The sooner the embargo is applied, the sooner may it be lifted for all time. The sooner the American dye manu-

facturers may go to work in real earnest, the sooner will the United States will be able to say to the world: "I can supply your need for dyes, medicines, perfumes, flavoring materials and photographic chemicals of a high order."

That time is yet several years off. Had it already arrived, it would have come none to quickly.

Our foreign friends are looking on the United States for many products formerly supplied by Germany. But they will not continue to look forever.

## DYES IN ROTTERDAM

(Concluded from page 9.)

Paste sandfree, Indanthrene Scarlet G double paste, Indanthrene Violet B N Extract Paste sandfree, Indanthrene Yellow R Paste sandfree, Indanthrene Blue R S for paper powder, Alizarine Blue S Powder, Alizarine Blue W X 10 per cent Paste, Alizarine Green S Paste, Alizarine Red S W B Powder, Anthraquinone Violet Powder, Coeruleine I Paste 14 per cent, Brilliant Anthrazurol, Galleine 10 per cent, Acetyl Red B B. Cotton Yellow G, Cotton Yellow G I, Euchrysine R R D, Induline Scarlet, Oxamine Red, Special Blue G, Acid Violet 7 B concentrated, Acid Violet 3 B N O N Y, Chuinoline Yellow P Extra concentrated, Eucrysyne R T.

*Farbwerke Vorm. Meister Lucius & Bruning.*—Helindone Black for Printing B R G Paste, Helindone Brown 3 G N Paste, Helindone Orange GRN Paste, Helindone Brown C R Powder, Helindone Brown G Paste, Helindone Brown R R Powder, Helindone Green G Paste, Helindone Grey BB Powder, Helindone Green BB Paste, Helindone Grey BR Powder, Helindone Violet B

Powder, Helindone Violet B Paste, Helindone Violet 2 B Paste, Helindone Violet R Paste, Helindone Yellow 3 G N Paste, Helindone Blue 3 G N, Indigo MLB/2 Powder, Indigo MLB/4 20 per cent Paste, Indigo MLB/6 B 20 per cent Paste, Indigo MLB/6 B Powder, Helindone Pink A N 10 per cent, Helindone Brown C R Paste, Helindone Yellow C G Vat, Acid Alizarine Blue Black A, Acid Alizarine Red B, Fast Acid Blue R, Janus Red B, Janus Yellow G, Milling Scarlet 4 RO, Patent Blue L, Thio-gene New Blue 2 R L, Helindone Blue 3 GN 20 per cent, Alizarine Brown G 20 per cent, Alizarine Direct Blue B, Alizarine Red IWS, Indigo MLB/2 B Paste 20 per cent.

*Farbenfabriken Vorm. Friedr. Bayer & Co.*—Algol Blue 3R Powder, Algol Brilliant Orange FR Powder, Brome Indigo FB Powder, Algol Bordeaux 3B Powder, Algol Brown G Powder, Algol Corinth R Powder, Algol Grey 2B Powder, Algol Olive R Powder, Algol Orange R Powder, Algol Red B Powder, Algol Scarlet G Powder, Algol Yellow 3 GL Powder, Leukol Dark Green B Powder, Algol Blue 3G Paste, Algol Brilliant Orange F R Paste, Algol Brown R Paste, Algol Green B Paste, Algol Olive R Paste, Algol Pink R Paste, Algol Red B Paste, Algol Red FF Extra Paste, Algol Red R Extra Paste, Alizarine Indigo B Paste, Alizarine Indigo 3R Paste.

*Leopold Cassella & Co.*—Acid Green B, Anthracene Chrome Black 5B, Anthracene Yellow C Paste, Diamine

Cutch, Diamine Fast Bordeaux 6 BS, Diamine Scarlet HS, Formyl Violet S 4B, Formyl Blue BX, Immedial Olive B, Lanafuchsine 6 B, Paraphosphine G, Tannin Orange R Powder, Alkali Blue 6B.

*Actien Gesellschaft fur Aniline-Fabrikation.*—Columbia Brown RK, Diphen Blue R, Erika BN, Indocyanine B, Naphtogene Blue 4R, Neutral Grey G, Zambesi Black — D.

*Kalle & Co.*—Thioindigo Red B Powder, Rosinduline 2B Bluish, Thioindigo Red B Paste, Thioindigo Rose AN Paste, Thioindigo Rose BN Paste.

There are 438 additional consignments which are ready for shipment at the factories and will be forwarded as soon as strike conditions permit or arrangements which are now in progress, may be made for their shipment through another port.

## OPERATION OF WEBB LAW EXPLAINED

Combining under the Webb law to meet the intense and highly organized competition of foreign organizations, more than one hundred American organizations in the last year have filed their papers with the Federal Trade Commission, according to a summary just made by the Guaranty Trust Company of New York in its new booklet, "Combining for Foreign Trade."

Hitherto, it says, "in various manufacturing industries, higher manu-

facturing costs and comparative inexperience in export trade" have made it "extremely difficult at best for Americans to compete with foreigners for trade abroad. Therefore, meeting severe competition from powerful foreign combinations, and through dependence on foreign cable and telegraph companies, foreign banks and ships, forced to risk exposure of the secrets of their overseas business to their foreign competitors and to risk effective discrimination against their trade, American manufacturers, and especially the smaller producers, have been at a decisive disadvantage in export trade."

Not only the most powerful selling combinations in the world, such as the electrical and dyestuffs combinations in Germany, and the famous Cambrian coal combine of Great Britain, have worked against them in competitive markets, but large foreign buying combinations have helped to depress American export prices by making individual American producers bid against each other. "It is obvious," says the Guaranty Trust Company, "that the only way in which to meet collective buying effectively is by collective selling." Yet, as it points out, "there is no 'rule of three' by which any selling organization for export trade can be put together. The domestic problems of each industry have to be analyzed first, and the conditions of manufacture studied."

The three main forms of combination possible under the Webb law are explained in considerable detail, with examples drawn from various combination agreements already in effect. These agreements have varied as greatly as the industries they represent, especially with reference to the retention of trade-marks, methods of creating working capital, voting power, allocation of orders, and the problem of meeting existing foreign preferences for the lines of particular manufacturers without detriment to other members of the combination. The booklet closes with a brief description of some of the more renowned foreign selling combines, giving charts which show the extent of their indirect control and connections throughout the world. The booklet is presented, says the Guaranty Trust Company, "with the idea that specific data and detailed information, together with a discussion of plans of organization, based on actual developments, may be helpful to those who are seeking a solution of some of the more difficult problems of collective selling."

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## N. C. TEXTILE SCHOOL GRADS MAKE GOOD

A number of graduates of the North Carolina Textile School, which is a department of the State College, Raleigh, N. C., have recently received well merited promotions. Among these are the following:



J. Stoney Drake, who has been superintendent for a number of years of the Exposition Cotton Mills, Atlanta, Ga., has been promoted to vice-president of these mills.

W. N. Holt, who has been connected with the Texas Oil Company as salesman, Norfolk district, has been appointed supervisor of Texas oil sales, New England territory.

Z. V. Potter, who graduated from the above textile school in 1918, is now assistant manager of the Lily & Nantucket Mills, Spray, N. C.

## DYEING AND FINISHING

### Balancing the Strains Which Exist in Woven Cloth

In a paper presented recently before the Society of Dyers and Colorists, at Bradford, England, Eber Midgley stated that a woven fabric as it left the loom was more or less a mass of unbalanced strains, and unless those strains were balanced there would be a tendency for the fibers and yarns to shrink irregularly and give the fabric a wrinkled and cockled appearance. The correct degree of pressure and tension was an essential factor. The lower the quality of material, the greater variation there was in the length and diameter of the fiber, and the greater necessity for crabbing to prevent uneven shrinkage.

Continuing Mr. Midgley stated that with regard to mechanical manipulation, to a certain extent the limit appeared to have been reached in the types of raw materials and the structure of yarns

employed in the manufacture of textiles. There was, however, no limitation to the mechanical efficiency of the manipulation of the materials employed and the chemical treatment of those materials to provide them with new and improved properties. No section of the textile industry offered so many opportunities for original research and experiment in this respect as the dyeing and finishing section. There appeared to be a great opportunity for further application of chemical methods in cloth-finishing for obtaining improved handle, appearance, firmness and permanency of finish, in addition to providing fabrics with new properties.

Defects in woven fabrics often caused serious loss to spinners and manufacturers, and their prevalence had apparently increased, as the standard of perfection was higher twenty years ago than it was now. This was shown by the increased number of burlers and menders employed. The most serious irregularity and the most difficult to account for was styled "crimps." This was developed during the dyeing and finishing process, where the moisture developed the shrinking properties inherent in the fabric. Uneven shrinkage and movement of the fiber indicated an absence of uniformity in either materials or treatment.

Uneven conditioning of yarn on bobbins, so extensively practised at the present time, was to a considerable extent responsible for this type of defect. The outer layer of yarn on a spool received all the moisture applied—with

the result that mechanical and, in some instances, chemical alteration took place—while the yarn under pressure nearer the center of the spool was not affected to the same degree. These conditions very often resulted during dyeing and finishing in indefinable stripes being caused across the piece, of varying dark and light stripes of color, due to greater absorption of light by the portions of the yarn unevenly conditioned.

If the length of the pick on the bobbin was equal to the width of the woven cloth or a multiple of it, the unevenness caused by uneven conditioning would be fairly evenly distributed in the cloth. In other cases it would show.

During the discussion which followed, Professor Midgley said that one manufacturer who had been troubled with streakiness had removed the defect by altering the pick on the bobbin, and he also refused to use yarn which had been over-conditioned. Instead, an allowance was made to the spinner for the moisture otherwise added.

## ATLANTIC DYESTUFF MAKES IMPORTANT PURCHASE

### Acquires Newington Shipyard, Portsmouth, for New, Enlarged Plant

The Newington Shipyard of the Emergency Fleet Corporation, located just north of Portsmouth, N. H., on the Piscataqua River, has been purchased by the Atlantic Dyestuff Company, of Boston, with branches in Providence, New York, Philadelphia, Charlotte and Chicago, as a site for a new and greatly enlarged works, to care for its rapidly increasing business.

The Newington Shipyard was constructed in 1918 for the purpose of building wooden ships in which to carry troops and supplies to Europe. A number of ways were laid down and eleven ships of about 3,000 tons gross were launched, but never put into service; these are still tied up at the docks on the property; two uncompleted ships are yet on the ways and will perhaps never be completed.

With the property the Atlantic Company also gets a vast amount of equipment—electrical, mechanical and structural—as well as large stores of building and other material.

The property purchased by the Atlantic Company is located four miles north of the City of Portsmouth, at Newington Station, on the Lakeport branch of the Boston & Maine Railroad, on the south side of the Piscataqua River, which at this point is over a half mile wide, and has a depth at high tide of 27 feet at the piers of the property, thus ensuring ample depth for ocean going steamers.

The site comprises about sixty acres; additional purchases from private owners bring the acreage bought up to more than one hundred; the buildings on it consist of office building, warehouses, machine shops, work shops, blacksmith shop, compressor and power houses with complete installation, hospital, hotel, etc.

Two complete water systems are installed on the property, one for fire protection, using salt water, and the

other for service, using fresh water. More than two miles of railway track have been laid on the property, and among the equipment secured by the Atlantic company are a dinkey engine and travelling crane.

Work has been started on the buildings necessary for the works the company requires, which will include units for the manufacture of the thirty odd distinct products this company is now making. Complete installations for the manufacture of Sulphur Black, Sulphur Blue and other sulphur colors, Azo and other colors, various intermediates and coal-tar specialties will be completed as soon as possible.

The company will keep its works at Burrage, Mass., going during the construction of its Portsmouth works, and as the various units at Portsmouth are put into operation, the duplicate units at Burrage will be moved there and installed as reserve equipment.

With the unequalled facilities this location affords in the way of both rail and water transportation, drainage, freedom from nuisance, etc., the Atlantic Dyestuff Company will be in position to manufacture many products which other chemical works less favorably situated cannot, for one reason or another, produce.

When the company's plant, located at Burrage, was burned early last spring, there was some question about its continuing in the dye-manufacturing business; the demand for its various products was so insistent from the mills purchasing same through its sales agents that its owners decided to rebuild, and organize their own sales force; the result is that its sales have increased many fold during the past few months. During this time the Atlantic has made many long-term contracts, some of which run for a number of years, totalling several million dollars, for its products, and is to-day making substantially one-half of the Sulphur Black made and sold in this country; hence the necessity for a new and larger works.

This enterprise is an earnest of the

faith of the company's owners and managers in the fairness of our Government in protecting the American coal-tar dyestuff industry against unfair or ruinous foreign competition.

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Among the Rhode Island textile manufacturers who are members of the committee which will direct the campaign to raise \$3,000,000 as an endowment fund for Brown University are C. Prescott Knight and Webster Knight, of B. B. & R. Knight, Inc.; R. H. I. Goddard, of Goddard Brothers, and Henry D. Sharpe and Henry F. Lippitt.

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At Baltimore the American Fibre Products Company has been incorporated under the laws of Maryland to manufacture silk, wool, cotton and other textile fabrics. The capital is composed of 1,000 shares of no par value, and the incorporators consist of Paul B. Barringer, Jr., George B. Brooks and Clarence W. Gaylor.



### NOTES OF THE TRADE

Announcement has been made by the United Jersey Silk Company, of New York City, that the capital of this company has been increased from \$15,000 to \$25,000.

The American Cotton Converting Company has been incorporated under the laws of New York to deal in waste chemicals and dye articles. The capital is \$10,000 and the incorporators are J. Brandes, S. Barasch and S. Kretschmer.

Under the laws of New York, Thompson, Anderson & Co. have been incorporated to deal in textiles. Headquarters of the new company will be located in Manhattan, and the incorporators consist of D. A. Thompson, N. Anderson and S. L. Harper.

With a capital of \$75,000 the Lieberman Buchner Silk Manufacturing Company has been incorporated under the laws of New York to manufacture silks. Head offices will be in New York City, and the incorporators include S. Lieberman and S. and B. Buchner.

With a capital of \$10,000, the Gowdy Knitting Company has been incorporated under the laws of New York. Head offices of the concern will be in New York City, and the incorporators consist of M. S. Elwitz, B. Millhauser and A. B. Hano.

The Butterworth-Judson Corporation, Avenue R, Newark, N. J., manufacturer of chemicals, etc., has filed plans for the erection of a new one-story extension to its plant on Doremus Avenue near Roanoke Avenue, to facilitate operations.

Announcement has been made by Sawyer, Regan & Co., of Dalton, Mass., of the appointment of Thomas Heaton, of Rochdale, that State, as overseer of dyeing at the company's plant.

Announcement has been made by the Consumers' Dyewood Products Corporation, Choctaw Point, near Mobile, Alabama, that this organization is planning for the erection of a large new unit at its plant to increase the present capacity to a total of 350,000 pounds of finished dyes in crystal form monthly.

Under the laws of New York the Dearborn Color & Chemical Company has been incorporated with a capital of \$25,000 to manufacture chemicals and dyestuffs. Headquarters of the new concern will be in New York City, and the incorporators consist of C. J. Colville, J. C. Millard and F. Pye.

The Newport Chemical Works, Inc., 168 River Drive, Passaic, N. J., is considering plans for the construction of a large new plant at Belleville, N. J., to provide for increased operations. The company is negotiating with the Town Commission of that place for a suitable site for the plant, which is estimated to cost approximately \$200,000.

E. I. du Pont de Nemours & Co. have purchased, at a reported price of \$140,000, from C. A. Finnergan, of Buffalo, N. Y., the warehouse at 1435 West Thirty-seventh Street, Chicago, in the central manufacturing district. The company will use the building, which contains approximately 50,000 square feet of floor space, as a general warehouse.

It is reported that the Barrett Company will locate a branch in Baltimore, having recently completed the purchase of the Baltimore, having recently completed the purchase of the Baltimore Butchers' Abattoir property. The erection of storage, tanks, garages and other additions is to be begun shortly, and the initial investment will be in the neighborhood of \$40,000.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## AMERICAN DYE COSTS

Some of the Interesting Facts Revealed by  
Tariff Commission's Ten Months' Investigation

**T**HAT the American dyestuff manufacturers need not be afraid to lay their cases fairly and squarely before the Senate in their plea for protective measures as soon as possible; that the cost of labor plays a small part in determining the cost of producing dyes, even as dye prices play a most insignificant part in determining the cost of clothing; that the present prices of American-made dyes are from two to five times higher than the pre-war prices of dyes and intermediates laid down in this country by Germany; and that the reparations prices, with the mark valued at par (practically the price at which the German syndicate offered dyes through Dr. Herty), are in most cases a little higher than the prices of the same dyes in this country at the present time—these are four interesting bits of information to be gleaned from the United States Tariff Commission's new report, entitled "Costs of Pro-

duction in the Dye Industry, 1918 and 1919."

This report, which is No. 15 of the Commission's Tariff Information Series, has been eagerly awaited ever since it was decided in May, 1919, to make an investigation of this subject at a meeting of Commission members and the accounting representatives of the important dye manufacturers of the country. At that time it was determined that statements of costs should be submitted for the last half of 1918 and the first quarter of 1919. This information was received by the Commission, but after it was analyzed and tabulated it was found that the data did not cover a sufficiently long period of time to show the cost tendencies in the industry. Accordingly it was decided to obtain also the cost reports for the second and third quarters of 1919, so that the pamphlet now contains tables based on data covering a period from July, 1918, to September, 1919, inclusive.

The report is divided into two parts. The first presents a study of the cost of production of a selected list of dyes and intermediates in dollars per pound; the costs in 1919 in relation to the 1918 figures; an analysis of costs for the periods; variations of costs by companies for the third quarter of 1919; details of overhead expenses for the third quarter of 1919, and miscellaneous special charges for the third quarter of 1919.

In the second part a comparison of domestic costs in the third quarter of 1919 with the prices of dyes and intermediates in various markets at different periods is given. Statistical tables in the second part consist of a comparison of costs with pre-war and present processes of dyes and intermediates, and relative prices of a selected list of dyes compared with pre-war prices.

The selected list of dyes treated of comprises Benzo Blue 2B, Bismarck Brown, Chrysoidine, Direct Black, Indigo, Magenta, Malachite Green, Methylene Blue, Methyl Violet, Naphthylamine Black, Nigrosine (finished), Orange II and Sulphur Black.

In presenting the figures of cost, however, the Tariff Commission points out that the averages submitted do not represent the condition of the industry in as accurate a manner as the average costs usually represent industries that are long established and that have well-tested and standardized methods both of production and of cost accounting.

The fundamental idea upon which the tables are based is that the cost records as kept by the reporting companies shall be accepted as the accounting facts in the case without revision by the Commission. It is true some uniformity in the reports has been introduced by the methods of tabulation, but in the main the averages were compiled from figures actually found to be upon the books of records as kept by the various companies.

Peculiarities of various items of ex-

pense are pointed out in the detailed discussion of the tables.

There are two kinds of difficulties in the dye industry which render conclusions based upon average cost figures of doubtful value.

The first is that the manufacturing methods in the industry are not well organized and are not reduced to a normal routine. To a considerable extent the production in the past has proceeded almost regardless of cost. As with most of the war industries, the question of quantity output and prompt deliveries was of primary importance, and attention was diverted from the nicer adjustments that characterize routine operations. In many cases the management of particular plants thought it wiser to build full-sized productive units upon the chance that they would be successful in operation rather than to go through a long process of building small "semiplants," or "pilot" plants as they are sometimes called, where the engineering and chemical problems are worked out before quantity production is attempted. In many cases, also, the haste with which operations were carried on led to abnormal costs through low yields from the material consumed, or through the spoiling of valuable products by inexperienced or careless operators. Not only has this lack of organization of the productive processes led to great discrepancies in the cost between different firms, but it also has led to great variations in the cost for a given product at different periods for the same plant. Many of the tendencies toward lower cost of production due to a greater output have been hidden, therefore, by fortuitous circumstances connected with the productive processes.

The second difficulty that renders average costs unreliable is the fact that uniform methods of accounting have not been applied in the industry. This is especially true with respect to the distribution of overhead expenses to the various products. Because of the large capital investment

necessary in the dye industry the overhead charges are relatively large as compared with the direct labor cost. Therefore differences in the method of distributing them have a great influence upon the apparent cost of particular products.

Without going into the details of the various methods of distribution of expenses we may mention the following that are in use:

(a) Distribution upon the basis of the direct labor. That is to say, if all the overhead expenses for the dye factory are, say, 50 per cent of the total direct labor cost, a given product which has labor cost of \$1 should have an overhead charge of 50 cents.

(b) Distribution based upon the cost of the raw material used in a given product as compared with the total raw material used in the plant.

(c) Distribution based upon the direct superintendence chargeable to a particular product.

(d) Distribution upon the basis of the relative sales value of the products.

(e) Still another method in use, and one that seems to be particularly well suited to the dye industry, is a distribution upon the basis of capital investment in the various productive divisions of the plant. That is to say, if a given product or class of related products requires a capital investment of 10 per cent of the whole value of assets this product or class should bear 10 percent of the overhead burden.

No attempt will be made here to explain these various methods of distribution, nor was any attempt made to reconcile the differences in cost growing out of them in tabulating the reports as received. It is probable that some uniform method could have been applied, but because of the great diversity in the manufacturing and accounting methods of the various firms any scheme of distribution applicable to all reports would have been crude and arbitrary and likely to involve more errors than it corrected.

Another class of cost that is especially irregular upon the reports of the various companies is that of selling expenses, and they have been excluded from the report except in the case of one company where it was impossible to separate them from administrative charges.

In view of the unstandardized and varying methods of production and of accounting in this industry the Tariff Commission must strongly emphasize the uncertainty of conclusions drawn from the cost figures in this report, and the possibility of error in administrative action based upon such data. The figures are, however, the most trustworthy and the most significant that can be immediately procured under present conditions in the industry, and in any discussion of the cost of production the tables given must be accepted as the nearest approach to accuracy now possible.

In Table I, for example, the average costs of such well-established products as Sulphur Black, Nigrosine and Direct Black are found to be increasing in recent periods; and from this one might conclude that lower costs are not to be expected from quantity production, whereas, as a matter of fact, the higher average is due to very high costs for one or two companies whose yields were low on account of various accidental circumstances. Furthermore, in Table II-a the costs for different producers are seen to vary by a large percentage from the average cost for all companies. In almost every case these variations are explainable by some accidental circumstance, which in the long run probably will be eliminated but which now affects the whole trend of cost to such an extent that conclusions based upon average figures are likely to be erroneous.

Another minor source of error is shown in Table IV, in which the charges for special items, such as depreciation, interest and administrative expenses, are given. The charges for these items on the books of the



reporting companies were accepted as the facts in the case and no attempt has been made in this report to introduce uniformity with respect to them. The purpose in showing them in a separate table is to indicate their influence upon the total unit cost for the industry as a whole.

In Tables V-a and V-b are compared domestic costs for the third quarter of 1919, with price quotations for various times and places. One point brought out by this table is that present American costs are from two to five times higher than pre-war German prices, but that they are slightly lower than present German prices as fixed by the reparation scale.

It should not be concluded from this latter statement, however, that the American producers can compete with foreign manufacturers in all parts of the industry, because in some classes of products such as vat and alizarine colors, which are not shown in these tables but which are

of fundamental importance to a well-rounded industry, the foreign producers yet have a competitive advantage born of long practice in complicated productive processes.

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## FASTNESS TO RUBBING AND PERSPIRATION

Fastness to rubbing is of some importance for most dyed fabrics, but especially for those which go into use for clothing and upholstery. Fastness to perspiration is also important for these goods, and the combined action of rubbing and perspiration in actual wear may prove a most severe trial. The following paragraphs from an article by M. Fort, in *The Textile Manufacturer*, gives an interesting discussion of tests, color properties and dyeing methods bearing on these subjects.

Fastness to rubbing is often impaired by faulty or unsuitable dyeing methods, but it may also be regarded largely as a special property of particular dyes. In either case it is within the dyer's power to depreciate or improve fastness to rubbing by his choice of dyes and methods of application. For example, in dyeing indigo navy on wool it is possible to obtain every degree of behavior from a fairly fast shade to one so poor that not even subsequent milling or heavy scouring will render it satisfactory in a rubbing test. The chrome blues which are used in competition with indigo for navy, when reasonably well dyed, are excellent to rubbing, and the utmost skill and care are required to produce an indigo navy anything like so good in this respect.

The ordinary rubbing test is quite empirical, and leaves much to be desired. The dyed fabric is rubbed on unsized white calico, both cloths being dry. The writer, however, has observed the importance of relatively small amounts of moisture in rubbing tests. Shades of basic dyes on cotton when newly dried yield much more favorable results than after standing twenty-four hours to gain condition, and the rubbing test becomes increas-

ingly more severe with perceptible dampness. In all cases where fastness to rubbing under varying conditions of wear is important, a test with damp or wet material should supplement the ordinary one. Again, the finish or routine of treatment, subsequent to dyeing, may increase or diminish fastness to rubbing in certain cases. It is hardly necessary to say that treatment which removes loose dye, such as scouring and milling, often results in an improvement in this respect. The shades produced by garment dyers are usually inferior to those obtained in ordinary dyeing as regards rubbing, not only because of the limitations imposed on the actual dyeing, but also because of the absence of favorable finishing treatment.

#### DIRECT DYES ON COTTON

On cotton the direct dyes are among the fastest to rubbing. Dyed with ordinary care from baths containing soda ash, they usually yield satisfactory shades. The addition of soap or soluble oil, such as turkey-red oil, to the bath helps to produce the fastest results to rubbing. On the other hand, too much salt—especially as in old standing baths—low dyeing temperature, strong dyebaths, and few runs or short dyeing, and last, but not least, ineffective rinsing, all tend to diminish the fastness of the shades of rubbing. On every class of material the preliminary scouring, boiling, or cleansing, has more or less effect upon the fastness

to rubbing of the shades produced. Naturally, other things being equal, heavy or dark shades are most likely to show up badly in a rubbing test, while the degree of damp in the materials has considerable influence with dyes liable to stain off on white cotton. On wool and silk also the direct cotton dyes are good to rubbing, and the garment dyer is greatly indebted to them for obtaining his best results to rubbing.

As regards fastness to perspiration, they vary according to the nature of the dye and the perspiration, particularly its acidity, which may affect the shade of a few of the more sensitive reds and yellows. Ammoniacal or alkaline perspiration—e. g., that of horses—has usually a tendency to increase the bleeding and staining effect. The effect of urine, while stronger, is not unlike that of alkaline perspiration. Putrefaction must be reckoned with, as it is accompanied by a reducing effect which causes a change in the shade of some dyes due to actual chemical reduction. The ordinary test, carried out by immersing the dyed samples in a warm dilute solution of acetic acid to which common salt is added, fails to reproduce many of the effects of actual perspiration.

#### BASIC DYES

The basic dyes on the whole yield shades of inferior fastness to rubbing on any fiber, and all available skill in  
(Continued on page 12.)

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**A CLEAR STATEMENT**

Much pleasure and encouragement can be derived by American manufacturers and consumers of dyestuffs from a letter received by this publication from Senator Miles Poindexter in which he declares:

"I am heartily in favor of the dyestuff tariff bill, and expect to support it. There was, however, a plan to discriminate against certain Western industries covered by several bills pending in the committee, and I objected to this discrimination, as I believe the protective tariff principle to be one in which all who have industries coming within the terms and conditions of the principles to be applied should share alike."

We print this passage because it serves as an additional reminder to some of those who were misled by New York newspaper reports of the Senate dye discussion of February 25, and whose impression that Senator Poindexter spoke against the measure still persists.

The principle upon which the gentleman from Washington based his position with regard to consideration of the bill on that day is a sound one, and that he acted sincerely in demanding explanations from the Finance Committee is plainly shown by his straight-from-the-shoulder statement given above.

Since the attitude of Senators King and Thomas, and the absence of Senator Sherman, would have prevented a vote on the bill regardless of other considerations, the most unfortunate feature of the discussion was the fact

that supporters of the bill allowed to go unchallenged statements that any time will do to pass it as long as the War Trade Board continues to function, or as long after that body's automatic demise as the industry is protected by special temporary action similar to the Penrose resolution. As has repeatedly been pointed out in these columns, this is a false doctrine because it is the very uncertainty as to the ultimate outcome which has caused the dye makers to refrain from throwing their full resources into projected exploits which will require months for their consummation. Hence, while taking full cognizance of the fact that there are more important matters than the dye bill to be disposed of, there is no escaping the conclusion that holders of this view are wanting in information, if not in logic or concern for the future.

Senator Poindexter is not of those and will, because of his brilliancy in debate and tenacity of purpose, prove a powerful asset to the dye forces when the measure again shall be taken up.

**THE UNKAPPED CLIMAX**

It required but a matter of five days for the comic opera counter-revolution which the world has been amusedly watching o'er the Rhine to be counted out of existence. Had a Napoleon stood in the shoes of Dr. Wolfgang Kapp, Germany might now be on the way to order and—and almost anything you please, just so long as you make it something decisive; but under the circumstances which actually existed the result was never in doubt. A collapse was, fortunately, inevitable.

Outside of Germany the incident means little or nothing. It has merely been interesting as a spectacle. We see Dr. Kapp and von Luettwitz—who played the Dr. Watson of the piece—entering Berlin by the front door at the head of the stern Baltic forces, and we see Imperial President Friedrich Ebert and Minister of Defense Gustave Noske scuttling out



the back door. We see Dictator Kapp occupying the chancellor's palace and grandly issuing orders for the arrest of Refugee Ebert, who has managed to set the burglar alarm and telephone orders for a general strike on his way through the hall. We see Statesman Kapp speaking feelingly of his love for the common peepul, with one ear cocked inquiringly toward the railways and the printing presses, now strangely silent, and we see Fugitive Ebert dancing derisively about in the offing and refusing to play in Coalitionist Kapp's yard. Lastly we see Former General Provisional Director Kapp packing hastily and speeding away in a gray motor car amid a drenching rain which drips unceasingly from leaden skies, leaving behind, as a matter of political expediency only, a weeping woman—his daughter—whose vision of gracious power has vanished.

And as a minor but illuminating incident we see the stern Baltic le-

gions drawn up at attention in the Wilhelmstrasse and, unable to stand the "kidding" of the populace while awaiting the word to depart, opening fire upon a crowd of unarmed men and women who rush into the Adlon Hotel in a frantic effort to escape the fusillade of bullets. Again we see them as they pass the Brandenburg Gate, turning to discharge machine guns at the crowd, which has regathered to jeer them once more. Is it not eloquent of what poor stuff these creatures, fancying themselves conquerors, are made?

The entire tragi-comedy may be viewed as a half-hearted attempt on the part of those educated muckers, the Junkers, to seize the reins of power from the Bauer government, which now is popularly supposed to have them back again. But where have they ever been since the abdication of Wilhelm but in the hands of the more industrious class of German people? We have been favored with

a most clear-cut example of the efficacy of the general strike, by virtue of which—and nothing else—Ebert is again executive, and by virtue of which the extremists now agitating for Soviet government may be checked.

We have witnessed a vain attempt by the "old gang" to bring affairs in Germany to a favorable climax, and have enjoyed hugely watching the progress of a five days' wonder—the wonder being that it lasted five days.

## FASTNESS TO RUBBING AND PERSPIRATION

*(Continued from page 9.)*

dyeing is required to counteract this tendency. They are perhaps at their best on silk dyed from soap baths, or acidified baths, and possibly the natural smoothness and gloss of the silk also assist in preventing the shades from rubbing. On wool an acidified dyebath, slow dyeing, and good rinsing, yield the most favorable results if the wool has been well scoured. Bronziness of shade, which is readily obtained with basic dyes, is accompanied by the worst rubbing properties. Acids—e. g., acetic acid—greatly assist the solubility of basic dyes, and will restrain the dyeing to almost any extent according to the amount present in the bath. This restraint is a valuable aid to good penetration, and so to better rubbing properties. The control of temperature in favor of slow, even dyeing likewise acts favorably.

On cotton, defective fastness to rubbing of shades produced with basic dyes is a well-known objectionable feature. One of the best of them is Methylene Blue, but shades of this dye are by no means equal to those of good direct cotton colors to rubbing. The problem of how to render basic dyes as good as direct dyes has not been properly solved yet. It may be noted at the outset that padding and mordanting methods on cotton are often liable to yield shades which rub. For example, besides basic dyes, logwood and aniline blacks, paranitraniline red, turkey and

alizarine reds, and other less important dyed shades which involve impregnation followed by squeezing at some stage of production, are liable to be defective in fastness to rubbing unless all available skill is used in dyeing. The greatest practical efficiency obtained by squeezing at some stage of production, are liable to be defective in fastness to rubbing unless all available skill is used in dyeing. The greatest practical efficiency obtained by squeezing rollers, centrifugators, etc., while it may serve to gain apparent evenness on the fabric, fails to do for the individual fibers what a real dyeing affinity performs. It is, nevertheless, possible to obtain results to rubbing which leave little to be desired by processes involving padding. Thus the same tannin mordant which yields poor fastness when dyed with basic dyes, may, when converted into a yellow shade of titanium tannate, yield good results to rubbing.

## SOAPING AND RINSING

After fixing a tannin mordant with tartar emetic or other metallic salt, the subsequent rinsing should be made as thorough as possible to obtain the best rubbing properties with basic dyes. If a soaping is given as well as a rinsing before dyeing, a still greater improvement can be gained. It has also been proposed to treat tannin-mordanted cotton to a bath of silicate of soda neutralized with muriatic acid. Basic dyes applied on this mordant yield shades of improved fastness to rubbing.

The writer found that the kind of metal in the salts used for fixing tannin affects the fastness of the subsequent dyed shade to rubbing. Tin salts give poor results, antimony better, and aluminum and titanium the best result of all. Back-tanning is useless for improving fastness to rubbing, although it is used to improve fastness in other respects. While there is scope for further improvement in shades of basic dyes on tannin-mordanted cotton, it must be recognized that the defect is largely rooted in this class of dyes, and accompanies their use in any dyeing

process more or less. Certain acid dyes derived from basic dyes carry on this defect of the parent colors—e. g., Soluble Blues and some of the Acid Violets. There are exceptions among them, however, for Acid Magenta is of good fastness to rubbing, while basic Magenta is of poor fastness. Shades dyed with basic dyes tend to stain off and bleed in acid solutions, and do not therefore withstand the action of acid perspiration so well as acid dyes or direct cotton dyes.

The combined effect of rubbing and perspiration is a severe trial to most shades of basic dyes. Methylene Blue excels other members of the class. Alkaline perspiration, while not so bad for causing bleeding and staining, will more or less fade certain basic dyes—e. g., Magenta, on wool or silk—by its decolorizing action. A careful treatment with weak acid will revive the shade, however, if fading is due to this cause.

The fastness of acid dyes to rubbing is usually good, when well dyed and properly rinsed. The use of an acid bath improves the fastness to rubbing of shades on wool, and garment dyers can often obtain better results with acid baths even where neutral baths are permissible. Greasy wool is particularly liable to reduce the fastness to rubbing of the shades dyed on it, and no matter what class of dye is used, good preliminary scouring is essential to obtain the best results. Where wool is required to be dyed in the grease, there is nothing for it but to choose the best dyes, and acid dyes or after-chrome mordant dyes are most likely to yield fair results to rubbing.

Applied to cotton by padding, acid dyes naturally fail to behave well to rubbing tests, being in fact merely dried on. Their use in this way is small. The behavior of acid dyes on wool towards alkaline perspiration varies, but in many cases some degree of bleeding and staining is shown. The best acid dyes, however, such as the milling colors, are equal to withstanding the test. It has been proposed to after-treat certain acid blacks with copper

sulphate in the exhausted dyebath, after dyeing with acetic acid for improved fastness to perspiration; also certain shades on wool can be improved by a formalin treatment, but neither method has found extensive use. The kind of acid used and the amount present in the dyebath affect the period occupied before staining and bleeding reaches a maximum, and what appears to be a first-rate fastness in a test of a few hours may degenerate to considerable bleeding in a few days or weeks, according to how long it takes for the protective effect of the acid to disappear, as it is removed by alkaline perspiration or a succession of soakings. This and the effect of neutral salts in assisting bleeding were observed by the writer, who found that in the cold acid dyes bleed more into salt solutions than into water. Perspiration always contains considerable amounts of common salt, whether accompanied by acidity or not.

#### SHORT TESTS MISLEADING

Another of the writer's experiments shows how misleading impressions may result from short tests. Strips of dyed wool, obtained by application of an acid scarlet from the usual sulphuric bath, were immersed in cold water, which was changed twice a day. During two days practically no bleeding occurred, but afterwards it commenced, and increased to a maximum in about a week, after which it diminished again. The same dye on wool, applied from a neutral



bath, in a similar test bled most on the first day, and afterwards gradually bled less and less, although palpable bleeding continued even after six weeks.

Ordinary laboratory tests to imitate the action of water, perspiration, street mud, sea water, and urine give at most merely a negative assurance as to the fastness of shades, and real positive assurance can be gained only by prolonged and severe trials. A good perspiration test may be made under a stoker's shirt, supplemented by another under a cart-horse's saddle. If an artificial concoction to imitate ordinary perspiration is wanted—and it has a limited value—then the usual mixture of dilute acetic acid and common salt applied warm over a long enough period will imitate some effects of human perspiration, but not all.

The mordant dyes on animal fibers are usually good to rubbing when, and only when, mordanting and dyeing have both been properly performed, with good washing or rinsing between. Slow,

well-penetrated, level treatment in both mordanting and dyeing avoids the production of loose superficial shades which rub. If dyeing is done first, practically complete exhaustion should be secured before adding chrome for after-chroming, or the shades will rub. If dye and mordant are both present from the start, combination in the bath must still be avoided. They should be dissolved separately and only mixed cold. The bath may also be set with ammonia at the start, and in any case acid should not be added until the later stages of the dyeing.

Ammonium sulphate is preferable to acid, and may be added at the start. Shades of mordant dyes on cotton gain in fastness to rubbing by the use of clean and effective impregnation and squeezing, by treatment to remove loose mordants after fixing (especially good washing after the dunging bath), by slow and effective combination of dye with mordant in dyeing, and effective steaming and clearing with soap at the finish. Mordant dyes are among the most resistant to perspiration.

Sulphide dyes on the whole are remarkably good to both rubbing and perspiration. A shortage of sulphide or soda ash in the dyebath, ineffective squeezing or wringing and poor rinsing, make trouble when it could be avoided. As in most other cases, soaping after dyeing gives an extra improvement to rubbing, but after-chroming is of little use for this particular purpose.

The vat dyes, especially of the indanthrene class, can be dyed to yield shades of great fastness to rubbing, and perspiration rarely affects them in that case. Indigo is one of the most difficult to dye to a high standard of rubbing fastness. A sharp dye vat—viz., one in brisk fermentation or containing plenty of hydrosulphite—is the main requirement, while shades which air up quickly are least likely to possess good fastness to rubbing. Good squeezing or wringing also exerts a favorable effect, and a distinct importance attaches to a subsequent scouring of indigo on wool. Rinsing with a weak hydrosul-

phite, solvents and other additions to the scouring liquors, and various special aids to the removal of loose dye, have been tried to gain greater fastness to rubbing, with varying success. The quantities of hydrosulphite and caustic soda, as stated by the dye-maker, for use with vat dyes are liable to be too low if fastness to rubbing is specially aimed at. The use of soluble oil or soap in the vat also helps to provide the best results, and the final boiling with soap should be thoroughly effective.

In highly specialized dyeing operations, such as for turkey-red and aniline black, every care is taken to combat the tendency to obtain shades more or less defective towards rubbing.

What has already been stated of mordant dyes on cotton indicates the lines on which special care is taken in the dyeing of turkey-red. The single-bath aniline black, as frequently applied to yarn, is incurably poor to rubbing, although heavy soaping and suitable sizing will do a great deal towards improving it. The aged black is better to rubbing. Good padding and squeezing, a padding mixture in which the active ingredients do not react until after impregnation, slow aging, efficient chroming and soaping—these are all favorable to obtaining the best results. Fastness to perspiration is amply sufficient with these dyes, apart from assistant rubbing.

Paranitraniline red tends to rub in many cases, and, while the tendency is inherent, it can be diminished to small proportions. The grounding or preparing with naphthol should be done on well-bottomed material. Turkey-red oil in the prepare is advantageous. Good squeezing or wringing before drying, and an active effective diazo bath,

are important, as is also the final soaping or alkaline clearing treatment. If chemicking is done to brighten the red and bleach the fiber, it reacts favorably on rubbing also. Fastness to perspiration alone is good.—*Textile World Journal*.

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### SPACES FOR EXHIBITS IN BRUSSELS TRADE FAIR AVAILABLE TO-DAY

The annual Commercial Fair of Brussels, Belgium, which is to be held on April 4-21, will be the first large commercial exhibition in Belgium since the war.

All natural products or manufactures may be exhibited, with the exception of explosives and products of enemy nations. Samples, models, or pictures instead of the actual articles may be shown. Exhibitors will be required to state the origin of their wares, and may be required to produce a certificate. The delivery of exhibited articles to purchasers during the continuation of the Fair is strictly prohibited, but participants may register orders.

Possession of stalls may be obtained after March 15. The management of the Fair will take charge of and pay for the transportation of exhibits between the Tour-et-Taxis Station, Brussels, and the Fair grounds, but special application must be made for this. The management will take reasonable care of all exhibits, but declines responsibility in case of theft or damage. Information will be furnished on application regarding the insurance of goods against these risks. Space for the storage of empty packing cases will be provided at a small rental. All participants must remove their exhibits by April 30 at

latest, failing which they will be removed by the Fair committee.

The American Express Company has been appointed "Official Forwarding Agents and Travel Representatives in the United States," for the Fair, and will be glad to supply full information regarding it, including application blanks for admission of exhibits, as well as information regarding the company's services in connection with the Fair. Listing in the catalog to be published by the committee may also be arranged through the company. Inquiries should be addressed to the Foreign Trade Department.

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## GERMAN DYE SUPPLIES

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### Lord Moulton on the Question

Lord Moulton, chairman of British Dyestuffs Corporation, Ltd., addressing the color consumers at Manchester recently, recalled the address which he gave to color users in Manchester in December, 1914, when he urged the formation of a great dye industry, which must be a national one, because it could not possibly stand up against the old and powerful dye industries of Germany unless it was too big to be crushed and too national to be bribed. The danger against which he warned them had proved to be so great that the very existence of our own country turned upon its avoidance. The factories which we had to build to supply the demands of the war were now disappearing, because they were made purely for war purposes, whereas the Germans, in their enlarged chemical factories, in the swollen establishments of all their dye firms, had a wealth re-

maining which, although created for war, was still serviceable in peace.

The great German dye industry, supported by the Government very largely during the war, had accumulated large stocks. England had been starved of them, except so far as her own efforts had been able to create industries to make dyes under the difficult conditions of war-time.

The first purpose of the clause which he had had inserted in the Peace Treaty was to ensure that the world would not be at the mercy of Germany. The clause provided that 50 per cent of the German stocks should be taken by way of reparation, at a price which was to be settled by the Allies and credited to the reparation fund. The second part of the clause was intended to protect us in the future. Forty years of growth, assistance from the German Government, and our own negligence and that of other nations in chemical industries, had left Germany in a position to produce special dyes to an extent far greater than any other nation could cope with.

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## BRITISH COTTON MILLS PROSPER

According to an analysis of the reports of Lancashire cotton spinning companies for the twelve months ended November 30, 1919, prepared by F. W. Tattersall, of Manchester, record profits were made. A table of 100 companies, with a share capital of £4,723,475 (\$22,986,790 at normal exchange), shows an average dividend paid for the period under review of 21.34 per cent, the amount distributed being £1,007,989 (\$4,905,375). These 100 mills contain



9,182,418 spindles. During the year the directors of twenty-six of these firms have increased the amount paid up on shares by the payment of bonus out of profit. Since April there has been an increasing trade in yarn, and the margin of profit has steadily widened.

### ATLANTIC SAMPLE BOOK RECEIVED

Acknowledgment is herewith made of the receipt from the Atlantic Dyestuff Company, Burrage, Mass., of the company's new sample book devoted to Atlantic Blacks. This is being placed in the hands of that branch of the American textile industry which is interested in the use of Sulphur Blacks, and explains in detail the application of these colors as manufactured by the Atlantic Dyestuff Company. Notice of this new book will be given next week.

### REVIVAL OF FRENCH TEXTILE INDUSTRY

In 1914 Lille district had 342 textile mills, of which 98 were devoted to wool, 55 to cotton, 74 to flax, 38 to dyeing and finishing, and 77 to various purposes. At the present time 235 of these mills have restarted, and are employing 46,000 hands as against 125,000 before the war. The wool industry, almost entirely centered at Roubaix-Tourcoing, was the first to recover, as it could most easily procure materials. It is expected that these mills will soon be able to employ half the pre-war staff, as wool

has been bought in England and landed at Dunkirk and Havre, and will be conveyed to the factories by special train. The same applies to the cotton mills, of which 31 are already active.

### PRAISE BE TO ALLAH!—BAGDAD WANTS U. S. DYES

Prior to the war large quantities of chemical products, principally dyes, were supplied by Germany to Bagdad through a local German firm. Since the beginning of hostilities in Europe, however, no imports of this class have been received, but the enormous stock on hand was quite sufficient to meet the requirements of the country for several years. The chemicals supplied by Germany were adapted to the needs of the country, and it is reported that orders are now being placed by local merchants with their pre-war sources. If competitive prices, as well as facilities in shipment and terms, were offered, American firms might expect a large amount of business.

[A list of banks, pharmacies, and dealers in dyeing materials and chemicals, Bagdad, Mesopotamia, can be obtained from the Bureau of Foreign and Domestic Commerce or its district and co-operative offices by referring to file No. 2199a.]

Approximately \$100,000 will be the cost of a dye plant to be erected at Wilmington, Cal., according to present plans of the California Barium & Chemical Company.

## NOTES OF THE TRADE

Under the laws of New York, Fach & Co. have been incorporated with a capital of \$11,000 to deal in textiles. The incorporators are A. C. Fach and A. and S. Klener.

Extensive plans for expansion are rapidly being put into effect by the Cronkhite Company, of Boston, Mass., dealers in chemicals, oils, dyestuffs, soaps and other textile specialties. The capital of the company was recently increased to \$200,000, while new departments are being added and the sales staff increased. Albert Marcher, formerly of the Katzenbach & Bullock Company, has been appointed manager of the chemical department, with D. S. Sullivan as his assistant. The latter was in charge of the chemical department of J. A. & W. Bird Company, which department was purchased by the Cronkhite Company.

R. T. Grant has been appointed Southern manager for the United Chemical Products Corporation, with offices in the Realty Building, Charlotte, N. C. B. R. Dabbs has been appointed to act as representative of the company in Georgia, Alabama, Tennessee, Louisiana and Mississippi.

The Standard Color Works, Inc., 55 Liberty Street, New York, has filed notice with the Secretary of State of an increase in its capital to \$100,000, to provide for general business expansion.

Announcement has been made by the Calco Chemical Co., Bound Brook, N. J., of the closing of its dye plant at Burlington, N. J. The equipment at the works is now being dismantled and will be shipped to the company's central

plant at Bound Brook. Ernest B. Taylor, superintendent of the Burlington plant, has been appointed assistant superintendent of the company's department of intermediates at Bound Brook.

The Texdel Chemical Company, New York, has been incorporated with a capital of \$25,000 to manufacture chemicals and kindred specialties. W. Eise-man, J. M. Marshall and C. Neur, 1158 East Ninety-second Street, Brooklyn, are the incorporators.

Plans are well under way for the amalgamation of two of the largest chemical companies in Great Britain—Brunner Mond & Co., and the Castner Kellner Alkali Company—the two being already closely connected through the exchange of shades early in 1916. At the date of the last report the capital of the first-named company was \$48,665,000, but it has since been increased. The Castner Kellner Company's subscribed capital is \$4,866,500. The profits of the two companies during the year 1918-19 were \$4,935,292 and \$922,822, respectively.

"Blues — Their Origin, Manufacture and Uses" was the subject of an address made by O. F. Frick, of the Ultramarine Company, Huntington, W. Va., before a meeting of the Louisville Paint Superintendents' Club on March 17. The gathering was held in the Tyler Hotel, Huntington.

With a capital of \$100,000 the Union Products Company has been incorporated under the laws of Delaware to carry on business as chemists. The incorporators consist of Leon Wise, Israel Leever and J. S. M. Schulman, of Reading, Pa.

Announcement has been made by the General Chemical Company of declaration of the regular quarterly dividend of 1½ per cent on preferred stock. This dividend will be payable April 1 to stockholders of record March 18.



# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 13

March 29, 1920



## IN THIS ISSUE

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Competition Again Brought  
to the Fore in Letter from  
London.

### For the Man in the Street

An Editorial.

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

Vol. 6

New York, March 29, 1920

No. 13

## MR. KEENE HAS HIS SAY

Fresh Fuel Added to Controversy Over German Dye Stocks

**A** GAIN the mailed fist has been swung in London, and this time it has landed upon our neighbor and contemporary, *Drug & Chemical Markets*, right where the circulation runs into the editorial policy just below the subscription rates.

Readers will please refrain from searching for any hidden meanings in the above, for there are none. But the fact remains, apparently, that the endeavors of Irving A. Keene, the well-known dinner guest and industrial investigator, to prove that prospective German competition cannot be used as an argument for speed in Senatorial action on the Longworth bill, are not to be relaxed.

Those interested will remember that Mr. Keene encountered Dr. Charles H. Herty abroad while the latter was engaged in arranging for shipment of a six months' supply of vat colors for American consumers. Over the dinner table these gentlemen interrogated each other as to the results of their findings anent present stocks of German dyes—and disagreed most widely. Dr. Herty

came back with word that Germany could and would, by reason of existing and potential stocks, prevent the American dye industry from growing up if given a fair chance by failure of the Senate to act, and that there was every reason for haste. Mr. Keene, on the other hand, claimed in effect that such was not thusly and that there were a number of ghastly gaps in Dr. Herty's major and minor premises. Opponents of the Longworth bill, naturally enough, seized upon this succulent testimony like tax collectors going after a munitions millionaire, and the public began to sit back and smile with a strange, baffling smile.

Dr. Herty then became authority for the statement that Mr. Keene's knowledge of the German dye situation showed itself upon analysis to be what chemists refer to as "a trace"—or, as he himself phrased it, "not worth a tinker's dam." This drew forth a lengthy letter from Mr. Keene addressed to and published in *Drug & Chemical Markets*, in which the investigator declared that all hands had been

muddled by the "halo of the mighty Dr. Herty." Our contemporary published elsewhere in the issue containing this letter an array of figures and statistics tending to show that the Germans have and are making plenty of colors, and it likewise published a postscript to the letter—only too evidently not designed to be perused by grinning readers—in which Mr. Keene requested that a marked copy or two be sent to Col. John P. Wood, of the Worsted Dyers' Association, Philadelphia, Pa.—one of the most active leaders in the fight to cripple or kill the Longworth bill.

It was at this juncture that the REPORTER so far forgot itself to intrude upon the discussion by publishing an editorial under the heading "Harsh Words from Abroad" (which readers will doubtless recall) following the excellent example set by *Drugs & Chemical Markets* in directing attention to the postscript, and concluding with the ironical supposition that jealousy must have prompted Dr. Herty's contradiction of Mr. Keene's testimony, since the former had not been accorded the fulsome reception and entertainment tendered Mr. Keene by the opulent German dye barons.

The way was thus made clear for Mr. Keene to become snarky in the extreme, had he so willed, and none could have blamed him. But instead there came back from London a most piquant and racy letter, which is here presented to the reader:

Letterhead of  
THE KEENE COMPANY  
Manufacturing Chemists  
London, W. C. 1

March 6, 1920.

Mr. A. P. Howes, Pres.,  
Howes Publishing Co.,  
Woolworth Bldg., New York.

Dear Mr. Howes:—Your letter of February 11, with editorial "Harsh Words from Abroad," to hand. Thanks for same. I enjoyed it immensely and am pleased to note that you treat the controversy in a light, humorous spirit, as this has been my attitude all along, and when you mention my "scathing,

soul-searing denunciation of Dr. Herty," of course you do not mean it seriously. I assure you that I hold Dr. Herty, as a chemist, in the highest esteem, notwithstanding that he spent so much eloquence at Washington in telling what a faker I am, for I know that even this was done in a light spirit. While it is true that he distorted my remarks, made over a friendly dinner in Paris, ungraciously, I am sure there was no personal feeling—besides, he paid for the dinner and is entitled to a come-back at me.

You will recollect that he was sent to Germany to secure vat dyes, representing the United States Government. He called at the Badische Works, saw twelve out of the fourteen chimneys going, and tore back to American yelling, "Blue Murder! Germany has enormous quantities of dyes which she is going to dump." 'Sides, he wanted to be back at the pier in time to meet the incoming vat dyes which he had secured. This was about six months ago!

The Vat Dyes Are Coming,  
Hurrah! Hooray!

—Old Ballad.

In early February the vat dyes were reported actually on the way. In reverting to my official report as representative of the American Chamber of Commerce, after visiting practically all of the big dye and chemical works in Germany, I distinctly said: "Bayer Co. had nothing to offer excepting a few vat colors. I think that Dr. Herty will get as many of these colors as anyone would, but I do not think the quantity will be large in any case." So you see I knew there were some vat dyes available, and I even told Dr. H. where to get them, but I didn't think it would take six months. Mind you, he admits that the German maker is shrieking for cash, credit or raw materials, and states that he has enormous stocks to dump, etc., etc.

You mention my previous letter in which I asked for statistics, and then you lick your chops to a bright polish and say that a competitive journal *did*



give figures which squelched Keene forevermore.

Pardon me, oh, gentle reader, for one brief moment whilst I anoint my poor chapped lips.

This paper "proved" that in addition to 40,000 tons of dyes, as per the reparation inventory, Germany was producing 1,000 tons of dyes weekly. Their "proof" was that somebody in Germany told somebody somewhere else. However, for argument's sake, I will accept the figures as authentic. This journal also stated, "The official figures of the U. S. Dept. of Commerce show that for the eleven months ending December 1st, last, our imports of coal tar dyes from Germany totaled 141,554 lbs. valued at 82,643 English pounds."

Now what do you think of that, smarty Keene? Ef yer don't call that dumpin' we'd like to know what is.

(Interlude for gentle reader to use lip-salve, 'cause here's where he's going to larf.)

With blare of trumpets this journal tells us that Germany "*dumped*" 60 tons of dyes in eleven months, and *by their own figures*, this represents less than *three hours' output of the German works!* Think of it, Germany is on her knees beseeching us to take her products, and in eleven months we have taken from her less than her three hours' production.

Oh, yes, the quantity was small, but the quality, that's the thing! These dyes were the very finest and could only be obtained from Germany. "Ha! Ha! we got yer again, Keene."

Yep, so you have; I forgot about that. I see that according to your own official figures that the dyes averaged less than 60 cents per pound. As Dr. Herty proclaimed, "What Keene knows about German dyes isn't worth a tink-er's dam," so I am perfectly justified in assuming that these 60 cent dyes represented Algol Blue, Violet, Indanthrene Blue, Rhodamine, Patent Blue, Wool Green, or some of those other dyes for which America hungers.

Anyhow, by your figures there are about 5,000 tons of the 40,000 due, and about 20,000 tons for Germany to sell as she pleases, in addition to which she must give America about 250 tons per week of the 1,000 weekly production. Say Germany sells only half of her free dyes to America, there should be *due to arrive this month*, roughly, 12,000 tons as per treaty agreement, and 15,000 tons of the unrestricted output, making 27,000 tons in all—less of course, the 60 tons already delivered. Of course, it is possible that America may be her best market and she may send more than the 27,000 tons. One never knows, does one? It is possible that I have made some slight errors regarding the 250 tons per week; so I will knock that off and call it only 21,000 tons. Once more I repeat, pish-tush.

Yours cordially,

(Signed) IRVING A. KEENE.

P. S.—For those who are not familiar with the terms of the Peace Treaty, I herewith append details taken verbatim

(Continued on page 12.)

**AMERICAN DYESTUFF REPORTER**

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**FOR THE MAN IN THE STREET**

Someone or other who recently attempted an analysis of our national psychology based on much intensive experience gained in England, France and Germany and in rubbing elbows with still other races during the recent unpleasantness, drew the conclusion that in the main no people are so generally disparaging of their own institutions as are the Americans.

It is likely true. Yet it does not mean that the American is keen on hearing foreigners criticise him—far from it! His attitude may be compared to that of the classic married couple who were blissfully engaged in a strenuous controversy in which frying pans and chinaware served as argument and rebuttal and who, being interfered with by a stranger desirous of preventing what looked like an incipient murder, fell upon the outsider in unison and half killed him—after which the private carnage was resumed! But when there is no question of national pride involved, your American loves to sniff contemptuously at many of his own products.

It is difficult to lay hands upon any sound reason why this should be so characteristic of him. In one way, it is a good thing. He does not care to pause and admire, as do the French, his own achievements—at least he does not like to admire openly. Perhaps it is an unconscious expression of national youth, which is apt to associate that sort of thing with weakness. At all events, he is a chronic kicker against his Government, his railroad service, his telephone service—even in better days—his theatrical productions

—even while he fights to buy standing room—his magazines—which he allows to attain circulations of two or three million copies—and his food. Also he will, if pressed, complain bitterly about his dyes.

It was not always thus. He never thought about dyes until Germany was so treacherously attacked by Belgium. Then the subject of dyestuffs assumed great importance in his mind, and he was ready to tell the world that American manufacturers were fast making 'em fast.

Now that the manufacturers have really made some excellent progress, he is shaking his head dolefully over the results; his confidence is utterly gone and he doesn't realize what he is getting because he doesn't know just what "fast" means and never did.

In view of this the following letter, which is being sent out to dye makers over the signature of Dr. Elvin H. Killheffer as Chairman of the Chemical Exposition Committee of the American Dyes Institute, comes at an opportune moment:

"Gentlemen:—Recently a committee was appointed by the American Dyes Institute for the purpose of attempting something educational at the next Chemical Exposition.

"As is well known, since the beginning of the war the subject of dyes has been much more a topic of general conversation than ever before and people have as a result come to know more about dyes and their properties.

"Naturally this knowledge has not been by any means complete, and as a result of this partial information there has come to be an entire misunderstanding of some vital facts. The most glaring of these is the question of fastness, and it is perhaps the experience of all that the question 'ARE THE AMERICAN DYES FAST?' is one that is constantly asked, and very often answered as well, by the questioner—and almost always in the negative.

"The committee above mentioned proposes to devote the booth of the American Dyes Institute at the next

(Continued on page 12.)





## FOR THE MAN IN THE STREET

(Concluded from page 8.)

Chemical Show, to be held in New York City next September, to an answer to this question to the public.

"Several methods of accomplishing this result will be followed, one of which will be the printing of a leaflet on the subject of 'FASTNESS' for general distribution at the Show and elsewhere.

"In this leaflet we want to define 'FASTNESS' and tell all about different kinds of fastness, different requirements for different fabrics, etc., and naturally show that, color for color, our productions are the same as the German ones. We must deal also with lack of fastness and to what it is due.

"To this end we invite the help of all American manufacturers. We would like you to carefully prepare and submit to us your best thoughts along these lines. All of such submitted views or articles will then be carefully gone over by the Committees and the best thoughts and arguments worked up into the subject matter of the proposed leaflet.

"THIS SUBJECT IS IMPORTANT TO YOU.

"Will you not please give it your earnest and prompt attention, write it out and send to the undersigned without delay?

"To be of use we must get to work NOW.

"Yours very truly,

"CHEMICAL EXPOSITION COMMITTEE, AMERICAN DYES INSTITUTE,

"ELVIN H. KILLHEFFER,

"Chairman."

The booth of the American Dyes Institute could be put to no better use, it is our firm belief, than that which is proposed above. Always a consistent advocate of more and better publicity for the layman as a first means of securing necessary protective measures for the industry, the REPORTER hails this move as a most happy application of the power which comes from organization, and urges all manufacturers of colors to take part in the preparation of the leaflet.

Let your appeal to the consumer and the technician be made through your own booth. Here at last is an opportunity to place in the hands of the Man in the Street some general information which he should have had two years ago. Short of actual paid newspaper publicity no surer method of winning his confidence can be found than this.

## MR. KEENE HAS HIS SAY

(Continued from page 7.)

from the Covenant as signed by the German Peace Delegates.

No doubt many of our readers would like to have this portion of the Treaty, despite the Senate's failure to ratify it, and hence, here it is:

Page 145.

ANNEX VI.

1.

Germany accords to the Reparation Commission an option to require as part of reparation the delivery by Germany of such quantities and kinds of dyestuffs and chemical drugs as the Commission may designate, not exceeding 50 per cent of the total stock of

each and every kind of dyestuff and chemical drug in Germany or under German control at the date of the coming into force of the present Treaty. This option shall be exercised within sixty days of the receipt by the Commission of such particulars as to stock as may be considered necessary by the Commission.

2.

Germany further accords to the Reparation Commission an option to require delivery during the period from the date of the coming into force of the present Treaty until January 1, 1920, and during each period of six months thereafter until January 1, 1925, of any specified kind of dyestuffs and chemical drug up to an amount not exceeding 25 per cent of the German production of such dyestuffs and chemical drugs during the previous six months period. If in any case the production during such previous six months was, in the opinion of the Commission, less than normal, the amount required may be 25 per cent of the normal production.

Such option shall be exercised within four weeks after the receipt of such particulars as to production and in such form as may be considered necessary by the Commission: these particulars shall be furnished by the German Government immediately after the expiration of each six months' period.

3.

For dyestuffs and chemical drugs delivered under Paragraph 1, the price shall be fixed by the Commission hav-

ing regard to pre-war net export prices and to subsequent increases of cost.

For dyestuffs and chemical drugs delivered under Paragraph 2, the price shall be fixed by the Commission having regard to pre-war net export prices and subsequent variations of cost, or the lowest net selling price of similar dyestuffs and chemical drugs to any other purchaser.

4.

All details, including mode and times of exercising the options, and making delivery, and all other questions arising under this arrangement shall be determined by the Reparation Commission: the German Government will furnish to the Commission all necessary information and other assistance which it may require.

The above expression, "dyestuffs and chemical drugs," includes all synthetic dyes and drugs and intermediate or other products used in connection with dyeing, so far as they are manufactured for sale. The present arrangement shall also apply to Cinchona Bark and Salts of Quinine.

In commenting on the above, the REPORTER desires first of all to say that in this controversy, as it has developed, there are two phases—the personal and the public. With the first we have no inclination to interfere save to remark that it has assumed a prominence—good-natured though it be—which tends to distract the mind from the real issue.

As to the public side, when two men

who have investigated the same situation evolve opinions so diametrically opposed, the only recourse which others have is to look into possible motives.

Most of us on this side of the water are wholly dependent upon what we are told, and in the absence of opportunity to "go and see" personally, must consider the sources of our information.

Mr. Keene, who this time omits any request to have copies forwarded to Col. Wood, was by his own indirect admission, at the time of the *Drug & Chemical Markets'* letter, unfavorably disposed toward adequate protection for the American dye industry. Whether he has altered his attitude or not in view of recent changes in the Longworth bill we are unable to say, but the fact remains that that was how the controversy started. Neither Mr. Keene nor Col. Wood will admit that this is the case; nevertheless the manner in which they evidently want the industry "protected" would, if put into execution, put the industry out of business before very long.

Mr. Keene is an American, doing business in London. Whether or not his business and affiliations would be apt to prejudice him toward either camp we must leave to readers of the REPORTER. Whether Dr. Herty's business and affiliations are of a nature to influence him one way or the other we also leave to readers. Who stands to profit—if either?

So much for possible motives.

The REPORTER is anxious to see the

users of vat colors in this country secure all they need from abroad until such time as these colors can be produced at home, nor will we condone for a minute with any group, concern or party—no matter who—which needlessly obstructs the accomplishment of this end.

It is a good thing, once in a while, to have a little re-stating of platforms, which are prone to warp a little if left too long in obscurity—hence, let us say that in order to supply American color users it is unnecessary to kill the American dye industry while doing it.

That is what the persistent anxiety of Mr. Keene to prove his point might bring about if successful, and that is what short-sighted importers and exporters would bring about if allowed permission to profit temporarily at the expense of greater business later on.

If his persistence arises merely from a desire to justify his judgment before the public, we should not blame him, although we should consider his activities ill-timed—but there is the evidence of that postscript!

What has happened in the past is certainly no criterion for what the Germans will do when the War Trade Board goes out of existence. Even if the United States had not yet received a single pound of dye—and there were no shipments being held up in Rotterdam—this does not alter the fact that Germany would be able to choke the American dye industry before it had a chance to become established.



And lastly, there is the fact that the uncertainty is restricting the present activities of American dye manufacturers, who should be traveling at top speed. This only, is the interest of the REPORTER in the controversy.

A blessing on Brother Keene! May his good humor never grow less and, until he can be persuaded to see that he is consciously or unconsciously trying his darnedest to create a false impression of Germany's dye potentialities—may his utterances never be heeded!

### THE ALKALI BOIL

By LOUIS M. TAILFER, in "L'Industrie Textile"

*(Concluded from March 8.)*

**The Plant.**—For the caustic-soda boil and steaming a cylindrical autoclave is used, similar to those ordinarily employed for boiling under pressure. The material rests on a perforated false bottom is about a quarter of that of the part below.

At the top of this smaller part is a pipe pierced with holes, and this communicates with the atmosphere or with a condenser. Thus the steam from the lye which has gone through the goods is evacuated, whereas the lye falls to the bottom of the kier. It is drawn from here by a pump with a reheater, and is forced again into the kier over the material. The reheater is a vertical tube containing a steam coil which heats the lye without weakening it. This arrangement quickens the circulation, because all the pressure is from the top of the kier, and the liquor falls to the bottom

by gravity, by the aspiration of the pump, and by the depression caused by the escape of steam.

The saponification of the fats and resins in the cotton is effected by the energetic circulation of the lye at a high temperature. Still, in proportion as the saponification proceeds, the strength of the lye is diminished, and in consequence its detergent action is weakened. The arrangement of the kier remedies this, as the steam is drawn off continuously, and the lye is thus concentrated.

**Bleaching for Printing.**—As an example take the treatment of printing cloths. The dry fabric is steeped in a solution of acid equal to its weight: 10 grms. sulphuric acid, 60 per cent or 16 grms. hydrochloric acid, 30 per cent, and a  $\frac{1}{2}$  gm. hydrofluoric acid, 75 per cent.

The goods are left in this solution for four hours, then steamed for  $\frac{1}{2}$  minute, and then washed in the open washer. They are next given a bath of soda,  $\frac{1}{2}$  per cent, at 50 deg. Cent., and left in this bath twelve hours, or over night. For this bath old saponified lye which has served for boiling-out under pressure can be used.

If the goods are very hard, for instance, if they are loaded with pectic matters—this operation is repeated several times. In the washing machine 50 grms. of chloride of magnesium are added per 1,000 liters of water.

The pieces are centrifuged until they retain about their own weight of water, and are put into the kier with a sufficient free space left above them. The

lid is closed down, and the steam is turned on from the system of pipes in the reheater. This treatment is with the aim of bringing the goods to a temperature of 100 deg. Cent., and its duration depends upon the capacity of the kier. It may require two hours and a half. The water and the air are drawn off from time to time at the bottom of the kier. In this way the material is well prepared; it is free from air, spongy, and can be uniformly impregnated with caustic soda.

The boiling lye is forced in so that all the material is evenly impregnated. For 1,500 kilogs. of cotton 50 kilogs. of Solvay soda is used, which, mixed with quicklime, gives 600 liters of caustic-soda lye. Before introducing this mixture 10 kilogs. of rosin are put in for the purpose of saponification. The lye is heated by means of the steam coil in the reheater, and circulated, keeping the temperature at about 125 deg. Cent. This circulation and reheating is kept up for about five hours, and by con-

stantly expelling the steam the lye becomes more and more concentrated. Then the goods are washed in boiling water.

The chloring is done with a third of the chloride of lime hitherto necessary. The goods are then washed, soured, and the process finishes with a thorough washing.

The process and the arrangement of the kier allow a very strong caustic lye to be used without fear of mercerizing or tendering the cotton. By this means chemically pure cellulose is obtained. The preliminary treatment with acid is not absolutely necessary; it can be suppressed in the case of easily bleached goods. The addition of a little hydrofluoric acid makes the action more energetic. By steaming the goods treated in a cold acid bath an economy in acid is effected. The acids destroy the inorganic compounds in the fiber, and if these are not present this step of the process can be left out, leaving any souring for the final operations.

In this case the first step is the treatment with alkaline carbonate or a weak lye, which is sufficient to free the goods from lightly adhering or easily soluble matter. Moreover, the alkaline carbonate, not being easily soluble, remains in the fiber in spite of the washing, and on the steaming which precedes the caustic soda it absorbs oxygen from the air imprisoned in the fibers, and the goods thus freed from air are able to stand the strong lye.

To sum up, the ordinary process is reversed; a weak lye is first used to remove the easily soluble matters, followed by a strong lye to remove the remaining matters, and this is a more rational procedure.—*Textile American*.

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At a cost of about \$750,000, the Monsanto Chemical Company, St. Louis, is erecting a new group of factory buildings on Falling Spring Road near the city line of East St. Louis, Ill. Foundations have already been completed, and work upon the superstructure is being carried forward.

## ATLANTIC DYESTUFF ISSUES UNUSUAL SAMPLE BOOK

Probably unique among catalogs of its kind in that it contains formulæ for dyeing various materials contributed by the company's own customers, the new sample book of the Atlantic Dyestuff Company, Burrage, Mass., entitled "Atlantic Blacks," should awaken the deepest interest among all users of sulphur blacks—and add something to their information as well.

Some of the contributed articles, with their authors, are: "Dissolving Atlantic Blacks," by H. R. Ullrich, chief chemist of the New York Laboratory of the Atlantic company; "Dyeing Hosiery with Sulphur Black," by John H. McNab, of Knoxville, Tenn.; "Sulphur Black vs. Oxidized Black," by R. J. Walker, president of the Charlotte Knitting Company, Charlotte, N. C., and district manager for the Atlantic company in that region; "Dyeing Atlantic Blacks on Plain Cotton Yarn," by Harry Fisher, chief dye-testing chemist of the Works Laboratory of the Atlantic company at Burrage, Mass.; "Dyeing Atlantic Blacks on Mercerized Yarn," by S. R. Goldsworthy, district manager of the Providence office of the Atlantic company; "Atlantic Black B Extra on Warps," by George K. Hannah, Jr., dyer and chemist for the Parkhill Manufacturing Company, Fitchburg, Mass., and "Prevention of Bronzing on Hosiery Dyed with Sulphur Black," by Samuel J. Hefti, district manager of the Atlantic company in Chicago.

Among the samples with formulæ used for their preparation will be found Atlantic Black B Extra on plain cotton hosiery, on mercerized hosiery and on ribbed hosiery; Atlantic Black B Extra on roving used for denim and on mercerized cotton yarn, Atlantic Black G Extra on mercerized cotton yarn and Atlantic Black R Extra on mercerized cotton yarn, Atlantic Black R Extra on loose cotton, Atlantic Black B Extra on gingham, and Atlantic Black R Extra on corduroy—this last producing an exceedingly rich, handsome effect.

Most of the samples shown were prepared in dyehouses of the company's customers.

While sulphur blacks are frequently topped with basic colors such as Methylen Blue for blueing or Malachite Green for greening the shade, it is said by the makers that because of the brilliant, pure tone of Atlantic Blacks it is usually not necessary to resort to topping them. These blacks likewise require no after-treatment with metallic salts for increasing their fastness to meet the usual commercial requirements, but where unusual fastness tests have to be met, they may be after-treated in a fresh bath charged with 1 to 2 per cent Bichrome, 1 to 2 per cent Bluestone and 2 to 4 per cent Acetic Acid, working for one half hour at a temperature of from 130 to 160 deg. Fahr. After removing, the material should be rinsed well. No appreciable change of shade results from this treatment.

Attention is called by the compilers of the book to the fact that here and there disparities may be observed in the formulæ presented. These, it is stated, have purposely been left untouched, no attempt being made to harmonize them for the reason that it is believed that the experiences of the various authors, gained in working under their own peculiar conditions, add greatly to the comprehensiveness of the information.

While the book deals only with the Atlantic Blacks of the company, the latter likewise produces, as is well known, a number of other colors for the dyeing of cotton, wool, silk, leather, paper, etc., full details of which, it is stated, will gladly be supplied to those interested. So rapid has been the expansion of the company's business since getting upon its feet after the disastrous fire which followed close upon the signing of the armistice in 1918, that a new works will be erected upon the recently acquired hundred acre tract of the Newington Shipyard of the Emergency Fleet Corporation, Portsmouth, N. H., a description of which was given in the REPORTER two weeks ago.



The Atlantic Dyestuff Company deserves to be congratulated upon the appearance of its newest sample book as well as upon the high order of its contents and the novelty of its subject matter. It constitutes a very useful contribution to the literature on the subject of the application of sulphur blacks.

### NOTES OF THE TRADE

With a capital of \$125,000, the De Luxe Knitting Mills have been incorporated under the laws of New Jersey to manufacture knit goods. Headquarters of the new concern will be located in Newark.

Under the laws of Delaware the S. & M. Dye Works, Inc., has been incorporated to dye, finish and bleach cotton, wool, silk, etc. Headquarters will be in Wilmington, and the capital of the new company is \$5,500,000.

Under the laws of New Jersey the Antonietti Silk Mills, Inc., have been incorporated to engage in the manufacture of silk and other textile fabrics. Headquarters of the company will be in West Hoboken, that State, and the capital of the enterprise is \$100,000.

The Winner Hosiery Mills have been incorporated under the laws of New York with a capital stock of \$25,000. Headquarters of the new concern will be in Manhattan, and the incorporators are E. A. Terry, M. F. McGowan and F. K. Harder.

The Textile Transit Insurance Company has been organized by the Silk Association of America to provide transit insurance at a rate determined by actual losses, plus minimum cost and a reasonable profit to stockholders.

The capital and surplus of the new company will total \$525,000.

Under the laws of New York the K. & K. Chemical Company has been incorporated, with headquarters in Manhattan. The incorporators consist of B. E. and I. N. Kopelman and J. Karsch, and the capital of the new company is \$100,000.

The United Silk Manufacturing Company, Ltd., has been incorporated at Montreal, Canada, to take over and carry on as a going concern the business of the United Silk Manufacturing Company, silk dealers. The principal incorporators include Michael Sarkis, Nicholas Cahill, manufacturers; Antoine Dumani, accountant; Phillipe Trottier, auditor, and Marie Dumani, forewoman.

According to recent reports, the new indigo crop of China is expected to be a record one, advices from Hohang and Tungshien being particularly optimistic. A group of prominent merchants have formed a syndicate for the erection of a dye factory and will receive assistance from the British Department for Commerce and Agriculture.

### MISS SIMMONS OPENS ADVERTISING AGENCY

Minna Hall Simmons, for the past two years advertising manager of John Campbell & Co., New York, manufacturers of aniline dyestuffs, opened an Advertising Service Agency on March 15th at 15 West Thirty-eighth Street, New York, where she will conduct a business embracing every branch of publicity and advertising service. She will continue to handle the account of John Campbell & Co., advertising their trade-marked product, "Camel Dyes," but she will also specialize in the preparation of advertising copy and booklets covering products appealing particularly to women, as her experience in this line has been varied.

Miss Simmons is vice-president and a director of the New York League of Advertising Women.



# AMERICAN DYESTUFF REPORTER

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April 5, 1920



## IN THIS ISSUE

### Hands Off !

Present Congress, Having Little Reputation to Lose, Could and Should Leave Further "Improving" of Dye Bill to Its Successor

### The Preparation and Dyeing of Jute

Dye-a-Grams : A New Department for the "Reporter"





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## HANDS OFF!

**Further Tampering with the Dye Bill,  
Beyond Minor Changes, Would Better  
Be Left for the Sixty-Seventh Congress**

FROM the very moment it was observed on February 25 that the Longworth bill would be left temporarily in a state of suspended animation while the Senate continued its job of not ratifying the Peace Treaty, it was obvious that this much "perfected" and "interpreted" measure would at once become the target for every theorist and busybody who could spare the time to further "improve" it.

As long ago as December 6, 1918, Dr. F. W. Taussig, former Chairman of the U. S. Tariff Commission, speaking at the first annual dinner of the American Dyestuff Manufacturers' Association at Sherry's, New York City, said: "Vacillation and uncertainty in tariff policy are probably more harmful than any extreme of high duties or of low duties." It is interesting and possibly helpful to recall these words just now, when so short a period is needed to complete a full year of uncertainty over the fate of the dye tariff bill. Last May it was introduced in the House by Representative Nicholas Longworth. A little more than four months later the

House passed it and it went to the Senate. But the Senate will not this year break the world's standing broad enactment record, for thus far it has had the measure for six months and already has lost its chance to equal the not startling mark set by the House. But then, too, it has been for sixteen months worrying at the Peace Treaty . . . and still the wasteful, bloody and hellish carnage with Germany continues. . . .

Dr. Taussig also said: "The drafted bills will be very much in the nature of a political platform. And if, by chance, any (tariff) legislation is adopted by the present Congress (the Sixty-fifth), or by the next (the present Congress), it will be tentative and provisional, presumably to be revised in the Congress to follow. In other words, nothing in the nature of a settlement of the tariff question, even for a period of four or eight years, is to be expected before the Presidential election of 1920 and the establishment of a new administration for the period beginning with March, 1921. Until that date, the coun-

try will not know where it is or whither it is moving as regards this important factor in its industrial prosperity. Whatever is done in the way of legislation during the session of Congress which begins in 1919 can hardly be more than provisional."

This was back in 1918, remember, yet if at that time anyone had predicted that it would take Congress as long as it has to make up its mind about a simple, sharply defined issue such as the question of protection for the dye industry, he would not have found many to agree. Dr. Taussig evidently knew his subject better than most of us would have wished to believe. He expressed the hope of the entire industry and of every patriotic American when he said: "It may be asked, however, whether some particular phases of the tariff question cannot be rescued from the general predicament and dealt with irrespective of party differences. Is it not possible that the dyestuffs industry can be treated by itself? Can it not be rescued from political strife? Is there not some chance that it will be considered upon its merits . . . and disposed of as an urgent matter needing immediate attention?"

Yes, Doctor—a Chinaman's chance, or the chance of a snowball which has rolled down the slopes of the mountains surrounding the outer circle of that country made so famous by Dante Alighieri and Billy Sunday.

"There are grounds for hoping," continued Dr. Taussig, "that special attention will be given to this industry, and that its case will be regarded as unique."

Right again! As a whole, the Congress has regarded the industry as unique in the respect that it can continue to produce and expand healthily under conditions of uncertainty that would prove intolerable to any other.

Like William the Conqueror when he set about establishing a claim to the English throne, it has added together a string of ciphers and deluded others into believing that it has produced a real quantity; one after another, petty technicalities and artificial difficulties

have furnished excuses for further delays until it has rolled up the imposing total of ten months without action being taken. Each time the cry has been "a week or two longer will not do any harm—and the net result has been just the same as though the measure were still being drafted by Mr. Longworth. The real quantity Congress would have us think it has produced is: A valid reason for delaying action.

The simple fact is that there is not one single legitimate obstacle to the enactment of some sort of protective legislation which will enable the dye manufacturers to serve consumers as they should be served. The latter have suffered quite as much, in some respects, as have the manufacturers, and have needlessly been put to no little trouble by the lack of a settled policy under which to operate. They have never been able to adjust themselves to the situation because there is no situation to become adjusted to—only a scramble, and the Devil take the hindmost. The Rotterdam strike and the weird rulings of the War Trade Board have likewise complicated matters and rendered the way of manufacturer and consumer a hard one—the manufacturer because there are always some to say that he favors such a state of affairs, and the consumer because he cannot depend on getting what he wants from abroad while it is being developed here.

The fact of the dye bill's having been officially before the Senate without discussion being completed has added further to the general complications. It has enabled many who up to that time had not contributed anything helpful, to "horn in" at this late day with bits of argument which are only too obviously not based upon such painstaking research and mature reflection as the Senate Finance Sub-committee has indulged in.

Since February 25 many have had a great deal to say upon the subject. Some, as for instance Col. John P. Wood and Senators Thomas, King and Kenyon, would like to say it with flow-

ers—with interment private and no mourners at the bier. Others, less bloodthirsty, would merely prefer to say it with reservations—but with *such* reservations!

Senator George H. Moses, of New Hampshire, and Senator Henry W. Keyes, also of New Hampshire, have both proposed amendments to the dye bill which they hope to force upon it. Possibly they are not sanguine, and possibly they wish to register the views of certain of their constituents. Nevertheless, while they have a perfect right to express themselves, it is difficult to see how they can accomplish anything save a further muddying of the waters.

Senator Moses attempts to have the bill define what is meant by the term "fair wholesale selling price" for dyes. He would have this mean "the lowest wholesale price sufficient to insure the maintainence in the United States of the production of such article by an efficient plant operated on a scale reasonably adequate to supply ordinary domestic demands." He would define "satisfactory substitute" as being "an article capable of giving results in use substantially equal to the article for which it is proposed as a substitute." The Secretary of the Treasury is to be the arbiter in both cases.

Likewise, under Senator Moses' proposed amendment, if an American manufacturer should make an essential dye for which the Secretary of the Treasury should assign a reasonable wholesale price of, say, 60 cents a pound, and Germany would send us this same color at 40 cents a pound, wholesale, the Government could then impose a duty of 20 cents a pound, or the difference in the wholesale prices, plus an additional duty of 8 cents, or 20 per cent of the wholesale selling price in the United States of the dye of domestic manufacture. This would bring the price of the German dye up to 68 cents as against the American price of 60 cents. Here is a nut for the reader to crack at leisure.

Senator Watson says that the proposed amendment will receive consider-

ation from the Finance Committee. That means more hearings. The Tariff Commission declares that the scheme will not work. Senator Moses says that he will have the case of the textile manufacturers opposed to the bill presented fully to the Committee. This is revolutionary. No such thing has been done before, of course! The objectors have been prevented from expressing their views; the time has been too short; someone has obviously been trying to "slip something over" on those who now seek to spite the face by a nasal amputation.

In all fairness they may be asked: Could conditions under the dye bill as it now stands, be any worse than they are at present? Could this country's future supply of dyes be more uncertain than it is now?

There has been wholly, utterly and superlatively enough of delay. Congress need not fear that its reputation will suffer by the commission of one more error—if error it be—through the enactment of this measure. Viewing all angles of the plight in which dye makers and dye users find themselves to-day, the one sensible move is to put a summary end to all this purposeless discussion—this "splitting little hairs already split"—and pass the bill immediately, thereby giving both factions something to use as a basis for business calculations, and then if it proves to lack essential features, have it amended by the Sixty-seventh Congress a la Taussig.

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William C. Lawson, formerly associated with A. Klipstein & Co., and later with the White Tar Company, has organized a company which will be known as the William C. Lawson Corporation. The new company will conduct a general brokerage business in chemicals, oils, dyestuffs, etc. Offices will be at 15 Park Row, New York City.

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A tentative estimate of the 1919-1920 India cotton crop places the total at 5,670,000 bales.



## THE PREPARATION AND DYE- ING OF JUTE

This fiber is one of the most interesting, if not one of the most important, that finds great and growing application in the textile industry, possessing many qualities that are not shared by other fibers of similar origin, and which are valuable factors in directing its use for the manufacture of certain classes of fabric that are of considerable commercial value.

To many persons jute is synonymous with burlap for bag manufacture, but since processes have been found that enable the fiber to be bleached and dyed in a satisfactory manner the plebeian idea of the uses of jute must be set aside and a more refined position given it.

A tour through any of the large department stores in our large cities or inquiries at any interior decorating establishment will convince anyone regarding the wide range of uses to which jute is put, while its popularity

from an artistic standpoint will not be overestimated.

The jute plant has been known and raised in India from the very earliest times for the valuable properties of its fiber, but it has only been since the beginning of the nineteenth century that the systematic treatment of the plant for its fiber for use in textile manufacturing received any attention. As a matter of fact, the only textile manufacturing that jute was consumed in for many years was the manufacture of continually increasing quantities of bagging for use in baling the American crop of cotton. It was not until the late sixties or early seventies that jute bagging became the almost exclusive article for this purpose, and consequently the jute industry—not alone from the agricultural viewpoint but the manufacturing as well—has increased to immense proportions, and with the prospect that it will continue to grow for the reason that we do not have in sight any other fiber that is fully able to take its place.

### BOTANICAL

Jute fibers are obtained from that part of the plant known as the bast, which consists of that portion of the stalks next to the outer crust or rind and which appears when viewed under the microscope to be made up of innumerable "bundles" which are actually the fibers of commercial value. The scientific name is *corchorus capsularia*, while the common names are too numerous to give here.

The plant grows to a height of from 5 to 10 feet, the average diameter of the stalk being over half an inch and with few branches except near the top. While the jute plant has been cultivated in many parts of the world, India retains its pre-eminence in this regard, the greatest crops of the fiber being raised in Bengal.

### TECHNICAL

The commercial fiber is separated from the plant by a process of cold-

water retting; the leaves, branches and capsules are removed from the stalks, which are immersed for several days in the slow moving water of streams, when the fiber portion may be removed without any difficulty, and in considerable purity. The dried fiber is made up into bundles, the length of which varies from 6 to 8 feet. For textile manufacturing purposes not all of this length is utilized; about 12 to 14 inches from the thick end is usually cut off and finds its outlet in the manufacture of paper stock, under the name of "jute butts." That portion of the fiber used for textile purposes is softened with an emulsion of soap and oil, and is afterward hackled and spun into threads, and then woven into cloth or otherwise utilized.

In the present article it is our purpose to confine ourselves more particularly to the preparation and treatment of jute fabrics from a textile point of view, but more especially such as require bleaching, dyeing, etc.

Jute, unlike many of the vegetable fibers, though used for coarse fabrics, requires considerable care, as it is incapable of resisting harsh treatment.

### BLEACHING

While there are known a number of practical processes for bleaching jute, the one yielding perfect results is yet to be discovered. Those which fol-

low, however, are to be recommended only by the fact that they are at this date actually used in various mills where jute is treated.

**For Jute Pieces.**—Pass through a  $\frac{1}{2}$  per cent solution of silicate of soda heated to 160 deg. Fahr., then through a second solution of sodium hypochlorite of such strength that the bath does not contain more than 1 per cent of available chlorine as determined by a volumetric test. This hypochlorite is made by acting on fresh solution of bleaching powder with one of soda ash, adding the latter until no further precipitation of calcium carbonate is noted; let settle, and draw off the clear portion for use, diluting with water until the proper strength is obtained.

After passing through this solution the goods are well washed and passed through a weak muriatic sour at  $\frac{1}{2}$  deg. Tw., to which has been added a small quantity of sulphurous acid. This treatment is to insure the removal of certain substances that tend to discolor the otherwise bleached material, and also to leach out the small quantity of iron that is always found in the crude jute fiber. Finally, wash well and dry; but if it is intended to print color on the fabric, pass the cloth through a solution of bisulphite of soda containing about 2 per cent of sulphurous acid, squeeze the excess of liquor out of the cloth, allow to lie covered with damp burlap for

*(Continued on page 12.)*

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Pointed solely toward the welfare and growth of  
the American Dyestuff Industry. Unbiased contri-  
butions appreciated.A. P. HOWES, President  
LAURANCE T. CLARK, Editor**DYE-A-GRAMS: A NEW DE-  
PARTMENT FOR THE  
"REPORTER"**

Many in the audience this week will no doubt recollect having heard of the South Bend, Ind., editor who was working away in his sanctum late one night, when his labors were suddenly disturbed by the entrance of a burglar via the window. And it was only after a fierce and prolonged struggle, the tale goes on to say, that the editor was finally able to rob the burglar!

This alleged incident we hold to be an absurd and malicious exaggeration, for we are certain that no editor would be capable of such traitorous traits of character. He might have politely held the burglar up at the point of a revolver—assuming that he was opulent enough to own this necessary adjunct to an editorial career—but as for actually employing force upon the person of a blood brother—no, no; it is out of the question! Probably what he actually did was first to talk the burglar into a stupor and then to go through his pockets for the price of a year's subscription to his paper . . . the story, however, is useful for conveying the public's conception of editorial hunger for the coin of this or any other realm.

But shucks! That is only another popular notion with no foundation in fact. Persons who have never experimented with cocaine or heroin have not a craving for these drugs; it takes the occasional sight of gold to engender a money-lust . . . what

chance has an editor to become inflamed with this mad passion, we'd like to ask?

No, what an editor really revels in is appreciation, praise, adulation, flattery, admiration, commendation, approval. Tell one of them that his stuff is good and you will see him arch his back and begin to purr. He will from that time forth be your firm friend; he will lie for you, defend you, steal for you—commit any crime for you, in fact, and tell everyone what a singularly keen and discerning fellow you are, how intelligent your views and how infallible your judgment. You may forevermore bend him to your will, and if in addition you offer to contribute articles and things he will cheerfully lay down his life for you, if necessary—and may even go so far as to send you his paper free!

All light and frivolous comment aside, however, we have just received both appreciation and an offer from G. E. Templeton, of the Brown & Wigle Company, Ltd., Kingsville, Ontario, and that is why we are taking a week off, so far as this space is concerned, from the dye question to introduce a new department in the REPORTER. Enough comment anent the dye situation should be found in the leading article to last at least until the next issue is published . . . and a little diversion once in a while is a good thing.

At all events, appreciation we have had ere this, but concrete offers do not come so often. It will be recalled that several weeks ago we published a letter from Mr. Templeton kindly commending our persistent stand on the matter of protection for the industry. He has written us again, and extracts from his letter follow:

"As you know, I have taken quite an interest in the Dyestuffs bill, and also in the REPORTER, and I would very much like to see it grow. . . . I do not think I have missed a copy since you started editing the paper, and I have many copies filed away for reference on various subjects. . . . I am enclosing a few remarks, and if you

(Continued on page 12.)





## A NEW DEPARTMENT FOR THE PREPARATION AND DYE- ING OF JUTE

(Concluded from page 10.)

are interested in them and care to publish them you may do so, under any heading you might wish. . . . I think a column devoted to 'Observations' or 'Notes and Comment' would go well in the REPORTER, and as stated previously I will gladly contribute."

Mr. Templeton has written a number of articles on dyeing and finishing for other publications, and some will shortly appear in our neighbor, *Fibre and Fabric*. He comes from an old New England mill family, is well known in that region among the mills, is a textile school graduate and is at present superintendent of dyeing and finishing for the Brown & Wigle Company. Likewise, he is an American.

We accept his offer with sincere thanks and the certainty that readers will find entertainment and food for reflection in the department which he will conduct. We are in hearty agreement with him as to the appropriateness of the proposed feature, and have often considered the advisability of taking steps toward the inauguration of just such a department.

On another page, then, will be found the first column of comment. Since this comment will have to do with the dye industry, will be epigrammatic in form, and will, to use a popular bit of slang, *diagram* the fine points of the dye situation from week to week, the name selected, "Dye-a-Grams," practically evolved itself and would seem to be a fairly happy choice.

We trust that Mr. Templeton's kind offer will encourage others to emulate him. It is a game at which many can play, and if you are inclined that way, by all means send a paragraph or two over your own initials—we know G. E. T. won't mind—to the end that the column may develop into a sort of forum for breezy and pointed comment upon various factors affecting the growth of the industry.

(Continued from page 9.)

three or four hours, and afterward dry over cans. This treatment leaves only neutral sulphite of soda on the fibers, which does not affect the printing colors during steaming but preserves the fibers against the oxidizing action of the steam chest atmosphere. The loss in weight by this process is sometimes as great as 8 per cent.

Another process is to subject the jute alternately to the action of potassium permanganate and sodium bisulphite; but the cost is against it, although the results are very good when properly conducted.

A perfect bleach is almost impossible to secure, as the fiber will not stand in necessary treatment. The only way to obtain passable results is to bleach with the first process above indicated, and then to make use of a tinting blue, for which purpose some of the so-called "soluble blues" answer very well.

### DYEING

Jute, like all the other fibers of similar origin, is not very difficult to dye; but, unlike most fibers, unless some special care is taken uneven results will always be obtained, owing to the great affinity that the fiber has for most colors.

At the present time three broad classes of dyestuffs are required as being of particular interest to the jute dyer—namely, the basic acid and direct colors—each class having advantages over the others according to the uses to which the dyed fabric is to be put. Mordanting of jute is unnecessary.

Dyeing Jute with Basic Colors.—Prepare the dye bath by heating the water to about 80 or 90 deg. Fahr., work the jute for a few moments to insure that it is evenly wetted, and then add a portion of the dyestuff, previously dissolved in warm water; gradually increase the temperature to 175 deg. Fahr., at the same time mak-

ing further additions of dyestuff until the proper depth of shade is acquired. Work for twenty to thirty minutes after the last addition, and then lift, wash and dry.

Some basic colors may be dyed at a temperature of 180 to 190 deg. at the start, but they are so few that it is unnecessary to mention them. Others of this same class require for the best results the addition of a small quantity of acetic acid, usually a pint to a kettle full of water; such dyes being the methyl violets and malachite (acid) green.

**Dyeing Jute with the Acid Colors.**—These colors always yield the brightest shades, and are applied to jute from a dye bath made slightly acid with about 2 per cent of oil of vitriol, together with 5 per cent of alum.

The color is added slowly during the heating of the bath until it boils, when the steam is shut off and the yarn or pieces worked for half an hour. Lift, wash and dry.

**Dyeing Jute with the Direct Colors.**—This class of colors is always applied to jute from an alkaline or neutral bath, receiving very great attention from dyers and manufacturers of burlaps or interior decoration, for which purpose these dyes are better suited than any others, as they are fixed more permanently upon the fabric and are much faster to light.

For dyeing yarn the kettle is prepared with: Direct color, 1 to 3 pounds; Glauber's salt, 10 to 20 pounds; soda ash, 1½ to 2½ pounds.

Enter at 180 deg. Fahr., raise the temperature to the boil, and keep boiling for one hour, or until the bath is exhausted or the proper shade is obtained. With light percentages the color is quickly taken up, but with heavier shades it will be found economical to maintain the standing kettle. Lift, wash well, and dry.

Burlap for decorative purposes is always dyed in the piece and with colors that will not be acted upon by the glue sizing that is put on the back

of the finishing fabric. Some manufacturers are using caseine as the burlap size, and with very good results. Dyeing the piece-goods burlap, a padding machine is always employed, as this enables the dyer to obtain in a very short time the heavy shade usually required. The color bath is made up with a very small quantity of water, or only sufficient to fill the box of the machine, and adding a small amount of some soluble thickening such as dextrine or caseine. This latter product has many advantages over any other similar material, and yields very good results on the finished piece.

The "color" is made up in a cask or barrel without any other addition than the thickener, and then poured into the "sow box" or trough of the machine, giving the pieces two runs in opposite directions, so as to secure shades. The padded goods are well squeezed through nipping rollers and then dried and "backed." The temperature of the color paste should be boiling, or nearly so, because the higher the temperature the better the penetration.

Printed patterns or designs are often applied to jute, and the process is exactly the same as for calico work, except that the color paste is made very much thicker, and that the color in a number of instances is not fixed by steaming.

Often white figures are printed upon the dyed burlaps, these being made up of a white pigment, such as



blanc fixe thickened with albumen or caseine.

As a wall covering burlap is certainly one of the most satisfactory we have, and it will, no doubt, continue to increase in popularity.—*Textile World Journal*.

### A NEW ANTI-CORROSIVE PAINT OR LACQUER

Duroprene, a patented, anti-corrosive paint, varnish or lacquer for all purposes distributed by I. Levinstein & Co., Ltd., of Boston, Mass., is a special base which, when dissolved in Coal-Tar Spirit, produces a varnish resistant to the action of almost all chemicals, and which, after evaporation of the solvent, remains as a protective film on the surface to which it has been applied.

The solution will not mix with Petrol, Paraffin or Methylated Spirit, but may be mixed or thinned with Benzol or Solvent Naphtha should it be deemed advisable.

The protective power of Duroprene may best be illustrated by the enumeration of some of its general properties.

The coating is quite waterproof and resistant to both strong and dilute acids and alkalis in the cold and, with very few exceptions, in the hot; also to corrosive gases and fumes, steam and damp atmospheres. It does not get tacky or blister when hot, and, being both tough and pliable, will not crack on exposure to weather or changes of temperature. Electrically it has very high dielectric properties and, being unattacked by ozone, is eminently suitable as an insulating varnish for all kinds of electrical machinery.

#### USE

Generally, when protection is required without particular claims to decorative effects (as on girders, metal work generally, or wooden tanks) Duroprene should be applied as an ordinary paint, without previous treatment of the surface to which

it is applied, apart from a general removal of dirt.

A covering of Duroprene, although dry on the surface within a very short time of application, requires considerable time to dry underneath, and will, therefore, if rubbed vigorously too soon after application, show a tendency to peel.

Care should be taken to avoid bubbles, pinholes or streaks through which corrosive gases or liquids can penetrate. To minimize the latter danger, a second coat is strongly recommended, and may be applied after the first coat has been on for twenty-four hours. The whole should then be left for one week to allow of thorough hardening before severe trials are made on the surface.

Where it is necessary to have colored or opaque effects, Duroprene may be applied either ground in with any ordinary dry pigment or as a protective covering over a well-dried linseed oil paint. In the latter case, the original paint must be allowed sufficient time to thoroughly harden, as otherwise the solvent present in Duroprene is apt to remove some of the original paint. This method of application is the usual one for outside and domestic purposes, and is especially applicable where weathering of paint is a serious matter; e. g., close to sea air.

For treating paper or fabrics to protect them from the action of corrosive liquids or gases, or to render them waterproof, it is desirable to apply the varnish with a soft, large brush or, if possible, with a felt roller. Previous treatment with size is unnecessary.

Duroprene improves the surface of water paints, and may be applied when the latter are dry in order to resist damp. The same treatment will render walls which have a tendency to porosity impervious to moisture.

Concrete painted with two or three coats of Duroprene becomes non-porous and waterproof, and tanks so treated may even be used for the

storage of petrol. When it is desired to cover large surfaces, such as concrete, brickwork or walls, a uniform coating may be most economically obtained by the use of a spraying machine.

The insolubility of the Duroprene film in petrol and paraffin renders it a suitable paint for motor chassis or engines which are in contact with lubricating oil.

For storage batteries any part of the cell-room or cell, whether metal, wood or composition, which is liable to be attacked by acid may be protected by coating with Duroprene.

When used as a lacquer for polished surfaces, and in electrical work for insulating purposes, the coating should be allowed to dry for twenty-four hours, and then stoved for thirty to sixty minutes at 150 to 200 deg. Fahr. This treatment binds the film to smooth surfaces, and also considerably hardens it.

The varnish should never be applied to hot surfaces, as blistering and pinholing due to too rapid drying will result.

#### COVERING POWER

No definite figures can be given, as so much depends upon the thickness of film applied and the nature of the surface to be treated; but, in round figures, 1 pound of Duroprene will cover about 600 square feet of iron, or 400 square feet of hard wood.

The drying properties of Duroprene solutions can be varied to meet different requirements, and customers are requested to inform the manufacturers if the drying time does not suit their purposes.

In order to soften brushes which have been used for Duroprene, they should be washed with Benzol, Naphtha or Turpentine.

#### INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the **AMERICAN DYESTUFF REPORTER** by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, Woolworth Building, New York City.

S. P. M. Co.—*Question*: I am sending you, under separate cover, a sample of dye. I find that this dye gives the tests of an acid dye, but another laboratory reports it as being basic. If I am wrong, I will be glad to acknowledge it, but want to know just what tests would identify this dye. On adding  $\text{BaCl}_2$  to its solution, I get a precipitate, and with tannic acid, I do not get one. When a solution of this dye is mixed with Safranine, a precipitate also results; so these tests led me to think that it was acid.

*Answer*.—The sample submitted proves to be Soluble Blue, an acid dyestuff. We cannot understand why your laboratory reputed it as basic.

## CHANGE OF SHADE IN ARTIFICIAL LIGHT

By PAUL V. RESENVELT

Everybody who comes in contact with dyed fabrics is aware of the fact that sometimes two samples of dyed fabrics are the same shade in natural daylight, but entirely different shades in artificial light. This is especially very common in blues, and almost everyone has noted how often a blue suit or dress of a good color in natural light changes in shade in artificial light to a dirty purple color.

For the dyer this change of shade is of the utmost importance, especially for the worker in a job dyehouse. If, for example, a dyer should match a lot to the original sample in daylight, and if this lot were then used for the sleeves of a dress, the rest of which had been made out of a previous lot, it might happen that even though sleeves and the rest of the dress matched perfectly in daylight, in artificial light the sleeves might show the complementary color; for example, purple, while the other part showed a greenish blue.

This change of shade is especially important in the dyeing of silk and wool, but naturally in some cases it is also important for other fabrics such as cotton and paper, etc.

If the original sample was dyed by the same dyer, it will be relatively easy for him to duplicate the original, but if the original sample was dyed somewhere else the dyer then will have a difficult task. It is then important to know how every dyestuff made by direct fabrication will change its shade in artificial light when in combination with other colors.

The following are the rules for the different dyestuffs:

**Red Dyestuffs.**—The *bluer* a red in natural light the greater tendency it will have to appear *redder* in artificial light.

**Yellow Dyestuffs.**—The more *orange* or *red* a yellow in natural light the greater the tendency to appear *greener* in artificial light.

**Blue Dyestuffs.**—The more *red* a blue in natural light the greater tendency it will have to appear *redder* in artificial light.

**Orange Dyestuffs.**—*Orange*, which is a very yellow red or a reddish yellow, will tend to appear *green* in artificial light.

**Green Dyestuffs.**—*Green*, which is a very yellow blue, will tend to appear *greener*.

**Violet Dyestuffs.**—*Violet*, which is a red blue or a blue red, will tend to appear *redder* in artificial light.

But these rules are only true by comparing two dyed fabrics of the same shade; for example, comparing sample A with sample B.

Sample A is dyed with a greenish yellow + bluish red + reddish blue. Sample B is dyed with a reddish yellow + yellowish red + greenish blue.

Samples A and B show the same shade in daylight, but under electric light sample A is much redder than sample B, or sample B much greener than sample A.

To demonstrate further the importance of the change of shades, a very specific case from my own experience may be quoted.—*Color Trade Journal*.

(To be concluded.)



## Dye-a-Grams

(See editorial page.)

Even if American dyes are not fast (?), the American dyestuff bill is—some consolation!

—o—  
Anyone is apt to make a mistake now and then—even Senator King!

—o—  
Poindexterity: Must mean some kind of camouflage!

—o—  
The efforts put forth by some of the textile publications in behalf of the dyestuffs bill are conspicuous by their absence.

—o—  
A number of the industry's publications will have an "I told you so" and "We advocated it" editorial when the bill finally passes.

—o—  
The first shipment of Hydron Blues has arrived from Germany. There'll be more kinds of "blues" shortly unless the dye bill passes.

—o—  
It's not so much a case of where to get the dyes—but where to get the price.

—o—  
The REPORTER may be neutral; but, thank the Lord, its neutrality is all one-sided—on one subject at least!

—o—  
The Textile Color Card Association has the right idea, but many a

dyer wants to know "how they get that way."

—o—  
If the Color Card has 128 shades, how many has the dyer when he gets through matching them? (If he ever does!)

—o—  
Wonder what happened to Lansing and Colonel House! They are about as "noisy" as some others we could mention.

—o—  
How many 100 per cent Americans are willing to use German dyes? If so, why?  
G. E. T.

## A HIGHLY COLORED CLAIM

The only comment we will make on the following paragraph from the *Daily Chronicle*, says the *Dyer & Calico Printer*, is that there *are* physicians in Harley Street: "An important discovery of a new dye, which, it is believed, will supersede all aniline dyes and establish a great new industry in Britain, has been made by a Harley Street physician, the *Daily Chronicle* learns. This new product possesses florescent properties, and two colors have already been obtained. Persons who have seen the results secured are loud in their praise of the beautiful effect which is gained, and say that the discovery is a highly-important scientific achievement. Engaged in special research work in a Government laboratory, the inventor wishes to keep his identity secret for the present, as his experiments have

not yet been completed. It is expected, however, that fuller particulars will be given next month, when it is hoped that 100 different colors may be evolved. The dye is obtained from organic substances, and one of the ingredients will have to be controlled by the Government."

### NOTES OF THE TRADE

Plans have been completed by the Kentucky Chemical & Color Company for the erection of a one-story addition to its plant in Louisville.

Announcement has been made by the Acme Dyestuff Corporation, of New York City, that the capital of this company has been increased from \$10,000 to \$15,000.

According to a recent report from Consul-General Smith at Calcutta, India, the embargo on the importation of dyestuffs into India has been raised. The embargo was established by the British Government last September.

The fire demon recently visited the plant of the Richmond Chemical Com-

pany, Richmond, Va., with disastrous results. The blaze was started by crossed electric light wires. The extent of the damage has not been made public.

Reolo, Inc., has been incorporated under the laws of Delaware to manufacture and deal in drugs and chemicals. The capital of the new enterprise is \$500,000.

With a capital of \$400,000, Otto Wagner, Inc., has been incorporated under the laws of New York to act as furriers and manufacturers of cloth. Headquarters of the new company will be located in Manhattan, the principal incorporator being Otto Wagner, of New Rochelle, N. Y.

The Red Seal Chemical Company has been incorporated under the laws of Delaware with a capital of \$300,000. The principal incorporators of the new company consist of H. E. Roessling, George E. Phillips and H. Rook Roshorn, of Philadelphia.

At Dover, Del., the Butterworth-Judson Sales Corporation has been chartered, with a capital of \$10,000, to deal in oils. The incorporators are T. L. Croteau, S. E. Dill and M. A. Brice, Wilmington, Del.

With a capital of \$10,000, the Clausin Chemical Company has been incorporated under the laws of New York. Headquarters of the new company will be in New York City, and the incorporators consist of V. M. Orefice, A. Clausin and P. M. Soozari.

The Charles F. Garrigues Company announces that the S.S. Hallfred is now afloat, from Norway for New York, with a cargo of over \$525,000 worth of nitrate of soda and nitrate of ammonia. This shipment, it is hoped, will be followed by further shipments, although it is stated that the material will be somewhat scarce at the point of production between now and the middle of the year.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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No. 15

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## BY WAY OF KILLING TIME

The Text of Senator Moses' Proposed  
Amendment to the Dyestuff Bill

WHILE hearings and discussions and "opportunities for the textile interests to present *their* side of the case" continue to be the rule at Washington, and the legislative machinery comprising the Senate and the Senate Finance Subcommittee has apparently hit a dead center so far as the dye industry is concerned, the temporary lull produced is deemed a good opportunity to present the text of the proposed amendment of Senator George H. Moses, of New Hampshire, to the dye bill, together with some of the proposed amendments of Senator Henry W. Keyes, also of New Hampshire.

The proposal of the former, which appears to be the more far-reaching of the two, has already been pronounced impracticable by the Tariff Commission; nevertheless, hearings upon it were promised by Senator Watson, chairman of the Subcommittee, and after all, perhaps everyone will be satisfied at last when these are completed. But in this connection we desire to register numerous doubts.

The proposed Moses amendment would accomplish the following:

Strike out section 501 and insert in lieu thereof the following:

Sec. 501. (a) That when used in this section the term "fair wholesale selling price" of an article means the lowest wholesale price sufficient to insure the maintenance in the United States of the production of such article by an efficient plant operated on a scale reasonably adequate to supply ordinary domestic demands; and the term "satisfactory substitute" means an article capable of giving results in use substantially equal to the article for which it is proposed as a substitute. The Secretary of the Treasury shall from time to time determine what is such "fair wholesale selling price" and such "satisfactory substitute."

(b) In addition to the duties provided in section 500 of this Act, there shall be levied, collected, and paid, during the period of three years, beginning

from the date of the enactment of this amendatory Act, upon any article enumerated in Group II or Group III of such section, if at the time of importation of such article a like article or a satisfactory substitute therefor is manufactured and offered for sale in the United States on a substantial commercial scale, an additional duty equal to the difference between (1) the sum of the dutiable value of such article, ascertained as provided in subdivision (R) of section III of the Act entitled "An Act to reduce tariff duties and to provide revenue for the Government, and for other purposes," approved October 3, 1913, plus all nondutiable costs, charges, and expenses incident to the importation thereof, and any duty thereon imposed by section 500 of this Act, and (2) the fair wholesale selling price in the United States of a like article or satisfactory substitute therefor of domestic manufacture, plus 20 per centum of such wholesale selling price in the United States: Provided. That subdivision (2) exceeds subdivision (1).

Strike out sections 504-519, inclusive, and insert in lieu thereof the following:

Sec. 504. Beginning six months from the date of the passage of this amendatory Act no package containing any article enumerated in Group II or Group III of section 500 of this Act shall be admitted to entry into the United States unless such package and the invoice shall bear a plain, conspicuous, and truly descriptive statement of the article or compound contained therein. On and after the date of the passage of this amendatory Act no package containing any such article shall be admitted to entry into the United States if it or the invoice bears any statement, design or device regarding such article or the ingredients or substances contained therein which is false or fraudulent in any particular.

Sec. 505. For the purpose of enforcing and administering the provisions of this title the Secretary of the Treasury is hereby authorized to make all necessary rules and regulations. The Secre-

tary of the Treasury shall also have power, through his duly authorized agent or employee, to visit and inspect all factories, books of record or account, documents or other papers of any domestic producer of any article enumerated in Group II or Group III of section 500 or any substitute therefor, for the purpose of ascertaining which of such articles are manufactured and offered for sale in the United States on a substantial commercial scale and the fair wholesale selling price of such domestically produced articles. The information thus secured shall not be a matter of public record, but shall be for the confidential use of the Secretary of the Treasury and his employees and agents and shall not be revealed except in the form of totals, averages, or summaries which shall not disclose the operations of individual domestic manufacturers.

Sec. 506. Any person who refuses or fails to comply with any order of the Secretary of the Treasury issued in pursuance of this title, or who refuses or obstructs inspection of his factory, books, accounts, documents, or other papers, contrary to the provisions of this title, and who, while so refusing, failing to comply, or obstructing, ships or delivers for shipment in interstate commerce any article enumerated in Group II or Group III of section 500, shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding \$100 for every day during which such refusal, failure to comply, or obstruction shall continue.

Sec. 507. The word "person" as used in this title includes individuals, partnerships, associations, and corporations.

Sec. 508. Whenever it shall appear to the satisfaction of the United States Tariff Commission that any person, with the intent to destroy or injure an industry in the United States or to prevent the establishment of an industry in the United States or to restrain or monopolize trade and commerce in the United States, is commonly and systematically importing, selling, or causing



to be imported and sold any product enumerated in section 500 of this Act under any agreement, understanding, or condition that any person within the United States shall not use, purchase, or deal in, or shall be restricted in his using, purchasing, or dealing in such products, the commission shall certify that fact to the Secretary of the Treasury; and entry into the United States shall thereupon be refused to any such products sold, shipped, consigned, or manufactured by such person until the commission shall certify to the Secretary of the Treasury that the conditions which led to the certification to the Secretary of the Treasury in respect to such merchandise no longer exist.

No such certification shall be made to the Secretary of the Treasury until after due notice and hearing. The Tariff Commission shall give such notice and afford testimony, oral or written, as it may deem sufficient to a full presentation of the facts involved in any proposed certification.

Whenever the Tariff Commission has reason to believe that a person is offering for importation any products in violation of this section, but has not information sufficient to determine whether it should certify that fact to the Secretary of the Treasury, the Secretary of the Treasury shall, upon request from the commission, forbid entry to such products until the commission completes such hearings, investigations, and proceedings as it may deem necessary; but the Secretary of the Treasury shall release under such bond as he may deem sufficient and permit conditional entry of any such products.

Any person importing such products, or to whom said products are consigned, who fails or refuses to submit to the inspection of a duly accredited investigating officer of the United States, when so requested to do, any or all of his books, records, or accounts pertaining to such products shall upon conviction be fined for each offense a sum not ex-

ceeding \$5,000 or be imprisoned for not exceeding two years, or both.

The powers granted the Tariff Commission under section 706 of the Act of Congress approved September 8, 1916, entitled "An Act to increase the revenue, and for other purposes," shall be available for carrying into effect the provisions of this section, and the commission is authorized to make all rules and regulations necessary for the accomplishment of the purposes of this section.

The Secretary of the Treasury shall co-operate fully with the Tariff Commission for the purpose of carrying out the provisions of this Act and is hereby authorized to make such rules and regulations as he may deem necessary for such purpose.

To meet the reasonable expenses of the United States Tariff Commission in the execution of the duties imposed upon it by this section, there is hereby appropriated, out of any money in the

Treasury of the United States not otherwise appropriated, the sum of \$—.

Of the changes proposed by Senator Keyes, one amendment provides that no dyestuff chemically different and different in practical use from any dyestuff made in the United States shall be denied the right of entry where the actual consumer declares that dye to be necessary to the production of his goods.

Another amendment gives the Tariff Commission larger discretion in the application of the import embargo and the third amendment aims to fix limitations to the duties to be established and to guard against any possibility of dumping.

In one of his amendments Senator Keyes provides "but which must at the same time bear such relation to the price at which the article can be imported as will afford reasonable and adequate protection to domestic textile and other manufacturers in competition with foreign manufacturers."

Another amendment provides: "Provided, however, That where in the judgment of the commission the same is necessary the admission to entry or delivery from customs custody shall be permitted of an amount of such article or articles as the said commission shall deem sufficient to supply the present need of the consumer or consumers."

Information from Washington as to what is likely to be the fate of these proposed changes in the bill continues to be delightfully vague and somewhat sporadic. Basing the conclusion on what information is obtainable, it does not look as though Mr. Moses would succeed in radically affecting the present bill. The industry and consumers are still giggling over the frantic appeal that the opposers be given a fair chance to state their side of the case—a plea which is by way of being one of those things which are funny without being vulgar—but amusing or not, there appears to be a well-organized and determined effort, on the part of those who would sacrifice the future of the dye industry for a fleeting advantage, to undo

what has already been accomplished in the way of constructive legislation.

One way or another, it appears as though the full year would be rounded out before definite dye protection legislation is passed. If the time does not reach a full year, it will be so close to it that for all practical purposes it may be called a year, anyway. On Monday of last week Senator Watson was forced, by reason of this new attempt to wipe out adequate protection, to give way to the Senate Military Committee and allow the Army Reorganization bill to be taken up. At that time it was thought that this measure would be before the Senate for at least a fortnight. Then if the Dye bill gets a hearing, one may look forward to possibly a week of discussion, to be followed by more delay before it can be passed by the Senate and the House jointly as a committee of the whole and a trip to the White House for President Wilson's signature. Less than a month remains—yes, Congress will easily achieve the record of having before it a simple, clean-cut proposition, admittedly a matter calling for haste, for a full year without having done anything concrete about it. There has been too much time lost unnecessarily.

### WORK GOES FORWARD ON ATLANTIC'S PORTSMOUTH PLANT

Eight new buildings of brick, tile, concrete and steel construction have either been completed, or are well un-

der way at the new plant of the Atlantic Dyestuff Company at Portsmouth, N. H. Other buildings are planned and will be started just as soon as the material for them is received.

Among the buildings nearing completion is a power-house of sufficient size to house a power plant of such capacity as to supply power and heat for all the operations now contemplated at this plant during the next several years. A considerable number of the Atlantic Company's operations will soon be carried on at its Portsmouth plant.

### CHANGE OF SHADE IN ARTIFICIAL LIGHT

BY PAUL V. RESENVELT

*(Concluded from last week.)*

A lot of almost 220 pounds of carpet yarn was to be dyed by a job dyer a brown shade, which was very rich in yellow. In the sample book a brown was found which was almost the same shade, but not as yellow. The dyer, therefore, changed the formula a little and dyed the lot with 0.4 per cent. Patent Blue, 0.8 per cent Sulphon Orange G, and 0.6 per cent Aliz. Rubinol R, and ruined with this combination the entire lot, as it had in artificial light a green tone, while the original lot was in artificial light a cerise red. After various sample dyeing in the laboratory, a new lot was dyed with a difficult combination which was 4 per cent Sulphon Yellow R and 1.2 per cent Wool Fast Violet R, this match-

*(Continued on page 14.)*



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Pointed solely toward the welfare and growth of  
 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

## IDLE IDYLL FOR THE IDOLA- TROUS

One frigid night in August, at the  
 Easter holidays,  
 The ice-boats skimmed the surface of  
 the Adriatic Sea;  
 The Southern skies with Northern  
 Lights were dazzlingly ablaze;  
 O'er Tophet lay a snowy mantle, white  
 as ebony.

The Arabs scanned the desert as they  
 laced up their galoshes;  
 The landlord, sobbing bitterly, the profer-  
 red rent declined;  
 The Ruth St. Denis dancers, all arrayed  
 in mackintoshes  
 Were giving recitations at the Refuge  
 for the Blind.

A Wall Street runner reached a bank  
 in safety with a bond;  
 A wildcat oil investment, which had just  
 begun to pay,  
 Was solid—like the ice upon a Texas  
 skating pond;  
 The pussycats serenely through the  
 heavens winged their way.

"Doc" Straton's gambling den was  
 pinched; the mark was quoted high;  
 "Nick" Arnstein was arraigned in  
 court; peace reigned in Mexico;  
 The rain poured down in torrents from  
 a cloudless, azure sky;  
 "Babe" Ruth was turned adrift because  
 his batting mark was low.

The strike was o'er in Rotterdam; the  
 Senate came to life;  
 The Editor—beloved by all!—a fortune  
 had amassed;

The movie couple reached their second  
 year as man and wife;  
 "Bill" Anderson was drunk, and—yes!  
 the Dyestuffs bill

had

PASSED!

BOO!

If any of our readers contemplate  
 an entrance into the publishing field,  
 here is a splendid chance to secure  
 an introduction to one of the dark  
 and mysterious secrets known—sup-  
 posedly—only to the initiated. For  
 years and years man has sought to  
 develop and perfect various schemes  
 for laying hold of reader-interest in  
 a pleasant and harmless manner, un-  
 til, after painstaking effort and ex-  
 perimentation, he has achieved a  
 number of fairly dependable stand-  
 bys. We are going to give one of  
 'em away, free gratis, for nothing,  
 in a few lines. (It's really surprising  
 what we'll take it into our head to  
 do when the fit is on us.)

Anyway, you first look around un-  
 til you find something which isn't at  
 all dangerous but which might cause  
 some annoyance in case certain cir-  
 cumstances should arise which  
 haven't the remotest chance of aris-  
 ing, or in case impossible events oc-  
 cur in a manner the reverse of that  
 necessary to render your selected  
 condition dangerous. (We trust we  
 are making all this quite clear.) Take,  
 now, this impossibility, stuff it, paint  
 a horrible visage upon it, give it a  
 set of artificial claws and teeth, multi-  
 ply it by ten, generally enlarge it  
 and bolster it up from behind until it  
 looks for all the world like a first-  
 class menace, and, when ready, thrust  
 it suddenly into the very face of the  
 public and yell "Boo!"

Then you seize a papier-mache Big  
 Stick and fetch it a terrific crusher,  
 knocking it at one fell blow back into  
 the Land of Nowhere from whence  
 you dragged it forth.

If engineered properly, this never  
 fails to make a hit. You have first  
 alarmed your public and then have



sprung like a doughty champion to the defense. You have stood fearlessly between your public and the threatened danger, and have handily slain the dragon, amid salvos of applause from the gallery.

Thus a contemporary, speaking of the present attempts to secure the protection to which the dye industry is entitled, says:

"Unbiased and unafraid, it (this contemporary) has always been able to tell the truth and has never hesitated to do so. . . . Because it is unbound and unprejudiced, because it is free to express the truth and state facts, because it has grown with the industry and has intimately known its trials and troubles, it is in a position to view the situation from a high viewpoint, uninterrupted by the clouds of personal interest or the haze of ignorance or misunderstanding.

"The (contemporary) is opposed to any laws, be they tariff or otherwise, which will unnecessarily impose a burden upon one industry for the unnecessary benefit of another. It is opposed to any law which will throttle an industry by preventing it from purchasing its raw materials in a fair and equitable market. . . .

"The (contemporary) cannot view the domestic dyestuff industry as divorced from the textile mills. Any cost of dyestuffs must be paid from the pockets of the textile mills or the public, and if that cost is unnecessary it is money taken dishonestly. No industry has a right to live upon the poverty of the people, and to force unnecessary costs upon them is to impoverish them.

"The (contemporary) has always fought, and still fights, for the protection of the dyestuff industry, and in claiming that the textile mills must receive proper consideration it is fighting for the best interests of the domestic dyestuff producers, as it is maintaining for them the only outlet for their product.

"For the dyestuff makers to argue only for themselves and ignore their consumers is conclusive evidence of

both their selfishness and their shortsightedness."

'Tis a grand flourish, indeed—and a great pleasure to see the villain being bowled over—but while it's a trifle hard to know just what it is that is being smitten, it looks very much like our old friend, the Menace of the Desperate, Designing Dye-makers, which is thus resurrected and so neatly dispatched. But we cannot, somehow, become excited. Does this publication take our dye manufacturers for a troupe of congenital morons, or just plain moral degenerates—or which? How did the textile manufacturers of Germany manage to survive while the German dye industry was being developed? And which would be easier to control in this country—a German dye monopoly or an American dye monopoly? The American dyemakers do not ask a monopoly or anything like it. Had Germany had serious competition while developing her industry she would infallibly have seen to it that all importations of colors being made there were kept out until her own manufacturers had advanced far enough to meet the foreigners' prices and then go them one better on shipping rates. And she would not have required a year to see the necessity of the step, either. We quote further:

"For the dyestuff makers to advocate any law which will in its operation say to the textile mill, 'You must purchase from us, at our price, or not at all, at any price' is an admission of their failure as manufacturers and a disregard of the future of the textile industry.

"The domestic dyestuff industry should be protected, amply and thoroughly. It should be supported by laws that will allow and encourage it to grow; but it is a severe strain to the imagination to believe that the American manufacturer is so much of a failure that he can succeed only by cutting off all competition in his products and allowing him to charge the consumer what he will.

"An industry builded with such ma-



terial will fall to the ground, carrying with it those industries with which it is connected."

We must confess that the foregoing is one of the most ingenious and carefully worded attempts to scare the dye consumers out of their wits that we have ever seen. Our contemporary has erected his white-sheeted apparition and is now shouting "Boo!" at the top of his lungs. It is an old, old device, but we do not think that many will jump this time.

The American dye manufacturer a failure! The American dye manufacturer asking to work his will upon helpless consumers!

If the American dye manufacturer is a failure because he cannot produce dyes immediately at as low a cost as those who have had the necessary time, the Germans themselves would have proved quite as great a failure at that business. Anyone who has progressed at least as far as high school ought to know by this time that the Germans spent from thirty to forty years in attaining their high level of efficiency. The American manufacturers ask but four or five years, during which time consumers may purchase any dye from abroad not available here at prices commensurate with our present standard of living. What does one expect from a country where a suit of clothes can be purchased for four or five American dollars! American dye manufacturers are not quite so simple as to desire to break the backs of consumers with unholy prices for products the future sales

of which they know depend upon being able eventually to manufacture cheaply and efficiently.

We note that our contemporary at no time states that the American manufacturers *have* asked this thing. The article is an "if" proposition from start to finish. There are evidently some who would like to force upon the American dye makers more restrictions than are saddled upon any other industry in this country. Take warning, dye makers! A frightful danger confronts you! Boo!

Take warning, consumers! The dye makers are failures because they need a chance to get started on vat colors through selling to you at unheard-of prices, and will surely carry you down into the mire unless all other vat colors are kept away from you while they are learning! Bah!

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### SOMETHING LIKE

At first we thought our eyesight was a little out of kilter, or that a hazy though ever-present wish had at last produced a hallucination even as thirst-wracked travellers lost in a desert are said to fancy they see cool water ahead where no spring exists or ever could exist. We had been reading the sign in rather a listless fashion while waiting for the clerk to wrap up something or other in the way of supplies for the office, but after a second and extremely intense perusal we couldn't have told whether we were carrying away a package of pencils or a full-grown safe.

The sign, which was prominently displayed, referred to ink. We hasten—let the business office say what it will—to make public the name of the brand—Le Page's. After a few lines devoted to a general description of the product, the following paragraph occurred:

"Le Page's chemists have not only developed this very practical essential scientifically, *but by using American dyes and American materials* scientifically, they have made it an ink that never fades—that is absolutely permanent."

The italics are ours, but this is indeed something like, and we wonder how many concerns making similar products would allow their advertising man to "get away" with a statement of this kind and still retain his hold upon their affection and esteem. Judging by results alone, not many would.

Believe it or not, this sign is Clever Stuff. Let the reader note the calm, unruffled assurance of that "but by using American dyes"—no laborious statement to the effect that American dyes "have at last been made trustworthy by unremitting effort," which would considerably weaken the effect and arouse a question in the reader's mind. Instead, there is the deliberately implied assumption of the reader's knowledge that when the term "American dyes" is used, enough has been said for the quality of the product with which they are incorporated. The psychological effect produced is that American dyes have so far progressed beyond the stage where they need any apology or defense, that the truth of their reliability is common property, lack of which proclaims the reader far behind the times.

And why not! It is true, and therefore is entitled to the most effective presentation possible. When one thinks of the prestige gained by many inferior articles or goods through the use of mere eloquence, it seems a pity that more concerns have not already seized upon the opportunity to take advantage of—and incidentally cash in on—their possession of a worthy product.

A little following of the example set by the Le Page people would soon bring public confidence to a point where the manufacturers following it would benefit.

## CHANGE OF SHADE IN ARTIFICIAL LIGHT

(Continued from page 9.)

ing the original sample in every kind of light, and was the only combination which did so.

It is a fact that two dyed samples might match perfectly at 10 o'clock in the morning, while at 4 p. m. they show quite a difference, and in every such case it will be found that these samples will show almost the same difference in artificial light.

It is also a fact that the human eye varies in its sensitiveness to colors, and some dyers are able to see in natural light the same differences as two samples would show in artificial light, while other dyers might see just the contrary difference.

A few years ago, while working for a dyestuff manufacturer two dyeings of a light drab shade were made which matched each other perfectly in daylight, but showed different colors in artificial light.

In one case the following combination was used:

0.065 per cent Fast Light Yellow G

0.055 per cent Aliz. Saphirol B

0.1 per cent Orange I B

which matched as perfectly as possible, with another combination as follows:

0.31 per cent Fast Light Yellow G

0.043 per cent Aliz. Saphirol

0.12 per cent Azogrenadine S.

Very little difference could be seen between these two samples, but the last sample looked a trifle redder to the writer. Then fourteen colorists were asked to tell the difference between these two samples, with the following result:

Four could not see any difference at all;

Six saw the same as the writer—No.

2 sample a trifle redder than No. 1 sample, while

Four more saw just the reverse, namely No. 2 greener than No. 1.

This experiment, together with others, proved to us that the majority of dyers will see the same difference in daylight as in artificial light, but that the majority is not such a great one as might be expected.—*Color Trade Journal*.

## Dye-a-Grams

AMERICAN DYE COSTS—*Headline*. We'll say they do.

—o—  
"Shoddy"—Why not educate the public to say "Wool Stock"? It "listens better."

—o—  
Of interest to some: Section 5, Article 2, of the Honest Merchandise Act.

—o—  
National may have kept our war looms working—but they should not take all the credit. The dyer was kept "working" for a while also.

—o—  
The difference between the "Educated Muckers" and "German Junk-ers," and our present-day street cleaners, is the former use Machine Guns.

—o—  
There are two sides to a story—and a dozen versions. This is also true of the Longworth bill.

—o—  
One sure way to increase the cost of Clothing is to have in effect "The Truth in Fabric" law.

—o—  
It is with gratification we learn that Senator Poindexter "expects" to support the Dyestuff bill.

—o—  
But then, we'll all be supporters, when the bill becomes a law.

—o—  
Wilson has views on Turkey. They may be changed by Thanksgiving, in more ways than one.

—o—  
Strikes are deplorable—but how about the one at Rotterdam?

Too much Soap, too much Lye—  
Usually the Dope that spoils the dye!

—o—  
One thing about New port: It, as a rule, improves with age!

—o—  
You cannot tell what a man is by his clothes; but you *can* tell what the dyer is.  
G. E. T.

## COLOR CARDISTS ACTIVE IN OBTAINING NEW MEMBERS

One hundred new members were added to the list of the Textile Color Card Association during the past three weeks. This is the result of a membership campaign being conducted for new members by the association, and is the largest number ever secured in one month.

The new members cover a wide range of industries, such as thread, upholstery, hosiery, millinery, shoe and leather, flowers and feathers, gloves, ribbons, braids, dyers and cleaners, dye-stuff manufacturers and dyers—as well



as garment producers and retail stores. It is interesting to note that this list represents a distribution over thirteen States, Canada and New Zealand.

The association now has a membership roster of nearly 500, representing every industry interested in color development. The circulation of the American Card now reaches into every State in the Union, with a constantly growing demand in England, Canada, Australia, New Zealand, Switzerland, France, South America, Holland, Italy, China and Japan.

This is indicative of the universal interest the American Color Cards have aroused here and abroad. The new members are as follows:

NEW YORK CITY.—Rubin Bros., Mme. M. Moutenot, R. H. Sircom Co., Berfelden Mills, Joseph Corn, Color Service Corp., Inc., Neuss, Hesslein & Co., Inc., Widmer Silk Company, Inc., Hecht, Mendes & Mandel, Pioneer Braid Manufacturing Company, Inc., Princess Textile Mills, Cammeyer, D. R. Grulich, Inc., Henbert Silk Company, Maxwell Textile Company, D. Nagase & Co., Ltd., Rudolf Saenger Company, Mills & Gibb Corporation, Monke, Kaufmann & Co., Werbro Ribbon Manufacturing Company, Brand & Oppenheimer, Senor & Wertheim, Inc., Gardiner Hall, Jr., & Co., Salembier & Clay, Inc., Strauss & Co., Michel & Krieger, J. H. Frederick Silk Mills, Inc., Engle Hess & Co., Windsor Print Works, Henry Glass & Co., Fownes Brothers & Co., Bachmeier & Co., Inc., McKittrick Huron Company, Inc., Hagemeyer Trading Company, Inc., August Moll Manufacturing Company, Baum & Wolff, Inc., A. W. McDonald, J. C. Naegeli, Eureka Mercantile Com-

pany, Toepfer & Meyers, Inc., Certified Chemical Corporation, New Castle Leather Company.

NEW JERSEY.—Barrett & Co., Turner-Zwaid Silk Dyeing Company, Mapele Silk Manufacturing Company, The Gautschy Silk Dyeing Company, De Gise Silk Dyeing Company, J. Rosen & Sons, Columbia Ribbon Company, Central Dyestuff & Chemical Company.

PENNSYLVANIA. — Ambrose West Knitting Company, Haytock-Crone-meyer Company, Charles O. Herbert Company, Penn Worsted Company, Eugene Vellner, Narrow Fabric Company, Louis Walther Manufacturing Company, Valkone Dyeing & Finishing Works, Miller & Sons Company, Kaufmann's "The Big Store," Phoenix Dye Works.

NEW ZEALAND.—Kirkcaldie & Stains, Ltd.

CALIFORNIA.—City Dye Works & Laundry Company, Cawston Ostrich Farm, B. Hart & Bro.

DELAWARE.—Amalgamated Leather Companies, Inc.

INDIANA.—Griffith Bros.

MARYLAND.—J. Schoeneman, Inc.

MASSACHUSETTS—Wachusett Thread Company, Standard Color Company, I. Levinstein & Co., McCallum Hosiery Company, Jennings & Co., Inc., Brown Durrell Company, Lowell Bleachery, L. C. Chase & Co., Phoenix Mills, Linden Dye Works, Inc.

MICHIGAN.—Cosendai Dye Works, J. I. Hudson Company.

MISSOURI—Nussbaum Silk Company.

OHIO.—The Comey & Johnson Company.

RHODE ISLAND.—Dempsey Bleachery & Dye Works, Gold Mark Knitting Company, Dexter Yarn Company, Lin-

coln Bleachery & Dye Works, Joseph Benn & Sons, Inc.

WISCONSIN. — Blumenfeld Locher Company, A. F. Gallun & Sons Company.

CANADA.—Canada Cloak Company, Ltd., G. R. Gregg & Co., The Cobourg Dye Company, Ltd., Toronto Hat Company, Ltd., Evans & Evans, Gordon, Mackay & Co., Ltd., Belding Paul Corticelli, Ltd., Standard Silk Company.

JAPAN.—J. Osawa & Co.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF AMERICAN DYESTUFF REPORTER.

Published weekly at New York, N. Y., for April 1, 1920.

State of New York, County of New York, ss.: Before me, a notary public in and for the State and county aforesaid, personally appeared Alfred P. Howes, who, having been duly sworn according to law, deposes and says that he is the publisher of the American Dyestuff Reporter, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

1. That the name and addresses of the publisher, editor, managing editor and business manager are:

Publisher—Alfred P. Howes, 4109 Woolworth Building, New York, N. Y. Editor—Laurance T. Clark, 4109 Woolworth Building, New York, N. Y. Managing Editor—None. Business Manager—None.

2. That the owners are: Owners—Howes Publishing Co., Inc., 4109 Woolworth Building, New York, N. Y. Stockholders owning or holding 1 per cent or more of the total amount of stock: Alfred P. Howes, 4109 Woolworth Building, New York, N. Y.; Mary K. Howes, Northampton, Mass.; Wm. F. Collins, Upper Montclair, N. J.; Derfla H. Collins, Upper Montclair, N. J.; N. H. Hiller, Carbondale, Pa.; Chester J. Goodier, Detroit, Mich.

3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association or corporation has any interest direct or indirect in the said stock, bonds or other securities than as so stated by him.

Alfred P. Howes,  
Publisher.

Sworn to and subscribed before me this 18th day of March, 1920.

[Seal.] J. C. Lawrence.

(My commission expires March 30, 1921.)

## COTTONS IN MEXICO

White sheeting or cotton cloth, used so extensively in Mexico by the natives, is being manufactured by various companies in the interior of this Republic, and is finding its way to local merchants in large quantities. A manufacturer's representative recently stated that his concern shipped about \$2,000,000 worth of goods via Vera Cruz to New York during 1919. The manufacture of print goods is being undertaken particularly, because Mexicans are heavy purchasers of colored cloth. White cloth now manufactured is used extensively in Mexican clothing factories. It is employed especially in lining shirts, suits, underwear, etc. The prices range from \$2.75 to \$5 United States currency, per 25 meters (about 27.33 yards), f. o. b. Mexican factory. The representative has made several large sales to the more prominent business firms in Juarez for immediate delivery. Wholesale prices asked by manufacturers average from 10 to 18 cents, United States currency, per yard. These prices are for material considered similar to that manufactured in the United States and sold at wholesale at about 20 to 25 cents per yard in El Paso, Tex.

Frederick J. Le Maistre, formerly of E. I. du Pont de Nemours & Co., has severed his connection with that corporation to form a partnership with W. P. Cohoe, 111 Broadway, New York City. The new firm will act as consulting chemists.

## NOTES OF THE TRADE

Under the laws of Delaware the Rich Silk Company has been incorporated with a capital of \$1,000,000 to manufacture silk, cotton, woolen and other goods of like character. Headquarters of the company will be located in Dover, and the incorporators consist of E. M. Thomasson, E. B. Ward and N. V. S. Mallory, all of Denver, Colorado.

Announcement has been made by the Neversink Dyeing Company, of Reading, Pa., that the capital of this company has been increased from \$45,000 to \$300,000. N. S. Althouse is secretary of the concern.

Under the laws of Pennsylvania, the E. R. Smead-Graham Company has been incorporated with a capital of \$10,000. Headquarters of the company will be located in Harrisburg, and the new enterprise will deal in chemicals. The incorporators are Edwin Robbins Smead, Robert E. Graham and I. I. Gram, of Philadelphia.

With a capital of \$60,000, the Antonio Silk Company has been incorporated under the laws of Pennsylvania to manufacture silk goods and other textiles. The works of the new company will be located in Scranton, that State, and the incorporators consist of E. J. Connerton, John McTighe and T. A. Donahoe, of Scranton.

With a capital of \$25,000, the Stainton-Tyson Company has been incorporated under the laws of Pennsylvania to manufacture hosiery and underwear. The headquarters of the new concern will be located in Chester, that State, and the incorporators comprise Robert Stainton, Jr., Albert Tyson and Robert Stainton, Sr.

Work is rapidly going forward on the new cotton waste mill of the Chester M. Goodyear Company, Greenville, S. C. This will call for the expenditure of \$360,000, of which \$260,000 will be devoted to buildings. The main mill of the new plant, which will be four stories and 250 by 100 feet, will be ready, according to present plans, by June 1.

H. R. Mallinson & Co., manufacturers of silks, are planning the erection of a new two-story brick and concrete plant building, 132 by 207 feet, Woolsey Avenue and Burden Street, Long Island City, N. Y. The new plant, including machinery and equipment, will cost in the neighborhood of \$250,000.

Under the laws of New Jersey, the Industrial Silk Mills, Inc., have been incorporated with a capital of \$50,000. Headquarters will be located in Paterson, and the incorporators include Elias Koushakji, Albert Sous, Antony Sous, Jabra Abdelnous, Shekri Baladi and Najeeb Koushakji.

With a capital of \$25,000, the Co-operative Silk Company has been incorporated under the laws of New Jersey. Headquarters will be located in Paterson, and the incorporators include Rosrov Basmajian, Emil N. Sarajian, Karnig M. Sarajian and Krikor T. Tashjian.

To engage in the dyeing and finishing of textile fabrics, the U. S. Dyeing & Finishing Company has been incorporated under the laws of New Jersey. The capital of the new company is \$100,000, and headquarters will be located in Paterson. The incorporators include Sabino De Gise, Alfonso Sgrosso and Louis Nazarro.

With a capital of \$50,000 the Andrews-Sabine Paint Corporation has been incorporated under the laws of New York to deal in paints. The head offices of the company will be located in Utica, that State, and the incorporators consist of D. and A. A. Sabine and A. V. Andrews.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 16

April 19, 1920



THIS IS THE  
APRIL EXPORT NUMBER

## Dye Research

By Dr. Robert E. Rose  
A Paper Delivered at the  
Spring Meeting of the American  
Chemical Society

## Profiteering in Power

An Editorial

American Chemical Society  
Urges Enactment of  
Longworth Bill

Foreign Trade Opportunities



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## DYE RESEARCH

The Time Is Ripe for the Academician to Begin  
Work on Facts Furnished by Industrial Researchers

BY DR. ROBERT E. ROSE  
Du Pont Dye Works

IN a paper on the above subject read by Dr. Robert E. Rose, of the Du Pont Company, before the Dye Section of the American Chemical Society at its St. Louis Spring meeting, held last week, Dr. Rose spoke as follows:

"We are very certain that this country possesses the materials and men to assure the success of the dye industry: We have the raw materials for all that is necessary; our chemists have shown that they can convert these into very excellent finished products; but, granting this, it still remains true that we have a long way to go before our resources are put to the best use. As a whole, our dye industry is rather like a process which is past the semi-works stage, but is not yet a smooth-running plant operation. It is for us to do all that we can to realize what is yet needed and to put every effort into making those things which we see are necessary, a part of the industry.

"For my present purpose, I wish to

point out that we are as yet digging up treasures fashioned and hidden by others. We have yet to hear that an American house has produced an entirely original and very valuable contribution to the list of commercial dyes. We have yet to read papers embodying the successful results of academic research which open new fields for the industrial dye chemist.

"Is it too early to think of doing all that may be, to speed the time when American names will be mentioned as originators in our chosen field? I do not think so, and I am here to tell you what I think should be attempted in order to insure our future.

"Research we must have—not a mere checking up of recipes, not a mere search for information which is known to others, but not to ourselves—that type of work has been exaggerated out of all semblance to its real value simply because of the fact that we have had to start with hardly any knowl-



edge of this particular chemical industry and we have been going through a sort of undergraduate course in dye chemistry. No, that is not what will keep us ahead—we must graduate to real research, that is, enter the entirely unknown, and either apply known generalization to new cases, or—and this is the higher faculty—taking known facts, add to them, and then generalize in such a way that new ranks of facts stand at our command. Of these two types of research, as I see it, one falls within the province of industrial organizations, the other almost exclusively to academic thinkers, using the word 'academic' to denote any investigational activity which is not prompted by immediate utilitarian motives.

"If my assumption is correct, it is clear that we, who must make research pay its way, are vitally interested in fostering that research which, though in reality more productive, is not so evidently based on financial returns. No one can tell a research chemist outside of the industry what he should study. The very essence of academic research is absolute freedom, even from the bias which comes from industrialism, and it is almost impossible for the sense of an industrial organism to see with unbiased eyes. But, on the other hand, the highest theoretical achievements have always come from a close attention to facts. Let us then furnish the facts and let the academician use those in any way he sees fit. We should, then, draw his attention to the subject, hardly more than that.

"Here we come to the first apparent stumbling block to that very necessary co-operation between those occupied in pure science and those who produce according to the methods of science: This is industrial secrecy—a very dangerous weapon because it is not alone two-edged, but double-pointed. All I can say is, that I hope the day may come when secrecy is no longer a necessity. In the meantime, we must admit that it must be observed. I should like to see it mitigated in this way, at least, that any real research chemist who is

doing important academic work should have access to any and all industrial plants and to the methods followed in those plants, he being on his word of honor not to divulge any secret process, but simply to utilize the information to the advantage of his research or of his knowledge of the subject in general. I believe this scheme was followed in Germany, where every Geheimer Hofrat was given the privilege by law, and where, so far as I know, that privilege was never once abused, though it conduced materially to keeping the universities' seats of live learning abreast of the times instead of years behind.

"In order to keep our subject before the research men and women of the country I think that we, in the industry, should lose no opportunity of emphasizing the theoretical side of our subject in public by addressing meetings of research men, writing articles, and, if possible, when we know enough about our subject, by writing textbooks or assisting those who wish to do so. You will find, if you think the matter over, that you can discuss most of the theory, even of your most secret processes, without risk of betraying your secret. Why not do so instead of getting the schoolman to tell us of the theory apart from our special need?

"More than one of the large companies have instituted a system of fellowships and scholarships to keep the subject before the institutions of learning of the country. That is going to help materially, but I have a warning to sound: We must discourage the doing of sporadic work, the making of a color by some novel way. What the universities should do is to contribute to our understanding of the theory, and that they cannot do by building new colored bodies which are very unlikely to succeed as commercial products. The danger is that the problems will be just such as occur to the research chemist in the industry who wonders what would be the result of combining atoms in a new order, but cannot take the time to satisfy his curiosity. The reason why this type of problem will be over-

done is that a great many of the men who are in charge of organic work are by no means dye chemists, make no claim to be such, yet they feel that it is only fair to let a student, holding a fellowship given by dye manufacturers, attack a dye problem—they then ask for suggestions and those are given them. What is required is the broadening of our knowledge of the fundamental theories of organic chemistry, and this can be better achieved by systematic work in any chapter of the chemistry of carbon than by the making of odd compounds fashioned on the fancies of the student of applied science.

"Just as we do not feel that universities and colleges should attempt technical courses, but train in a knowledge and understanding of the subject, so we wish the contribution of the workers in pure research to the basic. A series of investigations carried out in a logical effort to reach a generalization—that is

the type of work that will most benefit the dye industry of this country.

"Raw products, money, commercial organization, industrial chemists—all these we may have and yet fail if we have not real research."

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#### ARISTA CHEMICAL COMPANY INCORPORATES TO PRO- VIDE FOR EXPANSION

Announcement has been made that the Arista Chemical Company has recently been incorporated, with a capital of \$150,000, to take care of the rapid expansion of its business. The new company has secured a factory in the vicinity of New York, which will shortly be producing some of the dyestuffs which have been specialized in by the former company. The officers of the new company are: A. W. Seele, president; E. J. Wick, vice-president, and R. E. Tucker, secretary and treasurer.

## AMERICAN DYESTUFF REPORTER

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Pointed solely toward the welfare and growth of  
 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

### PROFITEERING IN POWER

*"... since I have myself  
 Of virtue nought to boast of.—I'm a  
 striker,  
 Would have the world strike with me,  
 pell-mell, all."*

The reader might well imagine the above lines to have been purposely written to introduce a word or two on the subject of present, past and future labor activities. But they were not. Neither were they stolen from someone else's recent and timely poetical outburst. They came from the poem "Pandæmonium," and if we are obliged thus publicly to admit our lack of information as to its exact date of publication, we can at least tell you that these lines, together with four or five others, were quoted by Sir Walter Scott as an introduction to Chapter 28 of "Kenilworth." And *that* was published nearly a hundred years ago.

Naturally, these words do not refer to the variety of strike which is at present occupying the attention of most of us, yet if they had been written yesterday as part of a weekly rhymed review of current events they would furnish a commentary upon the present attitude of some of us that might qualify as not bad—not half bad.

At this writing the railroads, so far as their regular employees are concerned, are pretty well tied up and can be run only with the assistance of volunteers working in conjunction with a few engineers and regular conductors. Freight—well, *you* know all about that, too. The elevator operators of New York City are refusing to aid any longer in uplifting the population of a

large, wicked metropolis. . . . We understand that submarine boats have not as yet been affected, but the subterranean—or subaqueous—tunnels of the North River are decorated at all terminals with neat, legible signs stating in a few well-chosen words that of train service there is naught.

This condition has continued, with variations, for a week. Indications point decidedly to a speedy let-up, and the chances are that by the time this issue of the REPORTER sees the light of day both vertical and horizontal transportation will have resumed a semblance of the normal. But no matter; the fact remains that for seven days, more or less, the business of the country has been seriously hampered and delayed, millions of hours of useful work have been lost when every hour counts heavily in the race of production against consumption, millions of dollars in capital have been tied up, and millions of people have not known how long it would be before there occurred an acute shortage of necessary food-stuffs for their sick, their aged and their children.

And why? Because a group comprising less than the hundredth part of their number quarreled with another group of equally microscopic proportions.

In the face of such a state of affairs it is most difficult to view the situation without bias, and many will be the hysterical outbursts before we have heard the last of the matter. Into one of these, however, this publication does not intend to be drawn, and therefore let us try to get a few facts clearly in mind before we take to slinging mean adjectives.

Under the laws of the land and our present mode of living the labor union is a necessary thing. Without it the individual laborer can be made, and repeatedly has been made, the victim of the boss who chooses to blacklist him unjustly; he is utterly without redress, and, if he has spent the best years of his life in learning a certain trade, can be practically deprived of his means of livelihood. Some will immediately take



violent issue with this view, but columns could be filled with other reasons in support of it and managers and executives in general are coming to recognize the truth of it. A state could be imagined wherein a union would not be necessary. But we have not yet attained it.

The wages of the railroad strikers are less than they ought to be. It is merely a matter of mathematics—not sentiment—to demonstrate that, in the case of one road at least, the fireman's weekly wage will buy a little over 40 per cent of the necessities of life which his weekly wage of ten years ago would buy. And it follows without further argument, we take it, that if he was not being overpaid then he is most certainly being woefully underpaid now.

Next, in the final analysis, the only real weapon which the union has been able to develop is the strike. That is to say, allowing that its members have a clear case of unjust treatment and that reasonable demands have been re-

fused, so that it becomes a question of a fight for recognized rights, the one method by which the employer can be hit where he will feel it is by the stoppage of his production and his income. The strike is no new thing; it dates clear back to the time of the Pharaohs, and some day it is destined to become as obsolete as the blunderbuss, which sometimes blew up upon being fired and killed half a dozen bystanders as well as the person aimed at.

The weapons are analogous in this respect, and that is why the strike will eventually be replaced and why the present strike has aroused such strong condemnation among the general public—the selfsame public which is, in the great majority, just as desirous of seeing justice done both parties to the dispute as it is to see its railroad service maintained uninterrupted. A hundred men can battle with another hundred and the country will go on about its business, but just so soon as rocks be-

*(Concluded on page 12.)*







## PROFITEERING IN POWER

*(Concluded from page 9.)*

gin to fly into a group of a thousand others passing by on their way to work the latter will think first of protecting itself before it inquires which side is in the right.

There have been all sorts of reasons given for the railroad strike, including "Red" agitation, deliberate deception of the men by "outlaw" would-be leaders, and secret connivance on the part of the merged Brotherhoods, but the main point is that a few men have the power to threaten the health and prosperity of millions of others.

That is why the union must discover some other weapon for its use, or the Government, which is stronger than either side, will forcibly regulate both. Unions have unquestionably produced many individual cases of insolence and have kept individuals in positions which could be better filled by others, but these cases are not typical of the main theory under which the solid, conservative organizations operate. And the unions are bound, in assuming responsibility for their members' positions, to likewise assume the responsibility of disciplining objectionables. If union leaders cannot control the members, someone else will.

No matter who was right, this latest demonstration of shortsightedness on the part of those who were engaged in

an essential occupation constitutes an offense against the welfare of the country which will not be tolerated by the public. It is doubtful, now that the matter has been given serious thought and plans are being made for the systematic training of volunteers for use in future, if such a tie-up will again be permitted to occur. The will of the majority must always remain stronger than the plans of any group.

And while a substitute for the strike is being evolved, an excellent preventive measure would be drastic action for the complete elimination of profiteering in all forms.

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## A.C.S. COUNCIL UNANIMOUSLY URGES ENACTMENT OF LONGWORTH BILL AS REPORTED

When the Spring meeting of the American Chemical Society, which was held last week in St. Louis, was being planned, it is doubtful if the members of the committee thought at that time that the Longworth bill would still be in committee when the gathering took place. Yet the meeting has come and gone, and the bill seems as far away from enactment as ever.

Seeing their opportunity and their duty, however, members of the society did not fail to let the meeting go by without a public expression of their

sentiments as regards the bill. Representatives of the 14,000 members of the organization unanimously passed a resolution urging the passage of the bill in the form originally recommended by the Finance Committee Subcommittee. This resolution was made the subject of a telegram sent last Tuesday by Dr. Charles L. Parsons, secretary of the Representative Council of the Society, to William R. Corwine, secretary of the American Dyes Institute.

The message follows:

St. Louis, April 13, 1920.

*William R. Corwine, Secretary American Dyes Institute, Wardman Park Hotel, Washington:—*

At the meeting of the council of the American Chemical Society in St. Louis to-night the following resolution was unanimously adopted:

The American Chemical Society, through its Representative Council, urges upon our Senators the necessity of prompt passage of the Longworth bill in the form reported by the Senate Finance Committee. Under the absolute protection afforded by blockade of German ports and encouraged by the favorable legislation of the preceding Congress, this Coal Tar Chemical Industry has grown by leaps and bounds. But to meet the unusual competition threatened from the present unified German industry, far greater safeguards must be established than were formerly considered necessary. The delay in enacting such legislation has caused the withholding of large

amounts of capital and the creation of an atmosphere demoralizing to research and to the technical development of the industry. We feel that the fate of this industry lies now with the United States Senate, and we urge the enactment of the bill as originally reported to the Senate by its Finance Committee, convinced that this legislative support will speed the industry's complete development, thereby assuring American consuming interests freedom from outside domination and providing a powerful factor in national defense.

CHARLES L. PARSONS, *Secretary.*

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### ROTTERDAM DOCK STRIKE MAY BE NEARING END AT LAST

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#### Germans Ready to Ship 438 Packages in Addition to 543 Now in Dutch Port

The Textile Alliance, Inc., is in receipt of information which encourages the belief that the Rotterdam dock strike is approaching an end and that the shipments of German dyes for American consumers which have since February 8, 1920, been lying at that port as a result of this strike may soon be allowed to come forward.

There are now lying at Rotterdam 543 packages.

Four hundred and thirty-eight additional packages are and have been for many weeks lying at the German factories ready for shipment. The

railroad and boat lines from the factories will not accept these dyes for shipment because of their inability to deliver them to the steamship company at Rotterdam owing to the strike.

Efforts to arrange shipment via some other port have thus far been unsuccessful.

Information received from the factories by the Alliance representative in Paris indicates that all orders for dyes to be supplied from "Reparation" sources have been practically completed for some time, being detained only by lack of transportation facilities.

The Paris representatives of the Textile Alliance have constantly been in close touch with the manufacturers and the transportation companies since these orders were placed, and have used every available means to have the dyes made ready for shipment as quickly as possible and dispatched at the earliest opportunity.

Owing to the public nature of this work, which was undertaken at the request of the War Trade Board Section of the State Department, the Paris representatives of the Alliance have at all times been in close co-operation with and have received the support and assistance of the United States representative abroad.

Information received by the Alliance from its Paris representative indicates that all orders placed with the Cartel are well in hand. Substantial

shipments of these Cartel dyes may be expected as soon as transportation service is resumed.

Forty-one casks of dyes, weighing 16,116 pounds, were shipped from Rotterdam on February 7, arriving in New York on February 25. These dyes have been distributed among the consumers who ordered them.

As far as the Textile Alliance is aware, no dyes of German manufacture ordered since the war have been imported by anyone into the United States with the exception of the forty-one casks above referred to.

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### STATE DEPARTMENT TO AID FOREIGN TRADE CON- VENTION

Co-operation of the State Department in organization of the Seventh National Foreign Trade Convention to be held at San Francisco, May 12-15, 1920, is announced by the National Foreign Trade Council, under whose auspices the convention will be held, and the chairman of which is James A. Farrell, president of the United States Steel Corporation.

In a letter to C. P. Converse, secretary of the Pacific Coast Committee, former Secretary of State Robert Lansing wrote as follows:

"At the instance of the Honorable James D. Phelan, I have the pleasure to convey to you the interest of the Department of State in the Seventh



Annual Reunion of the National Foreign Trade Council at San Francisco in May, 1920. This department is especially interested in the idea of the San Francisco Committee of inviting American merchants residing in foreign countries to attend the convention and believes that much practical benefit will result from this measure, provided a representative attendance is secured. The department has already lent its aid and the aid of its agents abroad in this connection and will be pleased to further the interests of the convention in any way which lies in its power."

Special trade advisers are expected at San Francisco from twenty-seven leading nations bordering the Pacific Ocean.

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## FOREIGN TRADE OPPORTUNITIES

Names and addresses of any of the firms mentioned below may be obtained by direct application to the U. S. Bureau of Foreign and Domestic Commerce, which compiled the list, or any of its district and co-operative offices. The bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers. Applications for particulars should refer to opportunity numbers; and in case information is desired regarding more than one, inquiry should be made on separate sheets.

32515.—The purchase is desired by

a merchant in Italy of a dyeing machine for coloring 50 kilos of stockings. Quotations should be given c. i. f. Genoa. Payment, cash against documents at Genoa. Correspondence may be in English. Reference.

32091.—General commission agents in India desire to communicate with manufacturers of textile goods, hosiery, hardware, fancy goods, etc., with a view to representing them in that country. References.

31797.—A manufacturer in Australia, who proposes to establish a factory for making women's clothing of all sort, desires to obtain agencies for piece goods, particularly georgettes and crepes de Chine, and also sewing silks.

32003.—A trading company in the United States with agencies throughout Europe, Latin America, Africa and Australia desires to purchase and secure an agency for chemicals, dyes, drugs, foodstuffs, cotton piece goods, hosiery, underwear, shoes, leather, automobiles and accessories, and general merchandise. References.

32322.—A merchant in Switzerland desires to purchase artificial silk goods, such as stockings, socks, underwear, skirts and dresses. Quotations should be given f. o. b. New York. Payment against documents before shipping. Correspondence should be in French. Reference.

32323.—A firm of dealers in India desires to purchase all kinds of cotton piece goods. Samples and c. i. f. quotations are requested. References.

32099.—A military co-operative society in Chile desires to purchase all qualities of canvas, flannel, socks and underwear of cotton and wool, towels, toweling, etc. Quotations should be given c. i. f. port of Chile. Payment, cash against documents. Correspondence should be in Spanish. Reference.

31802.—A merchant in India desires to purchase and secure an agency for piece goods of every description, hardware, matches, sugar, soap, cutlery, crockery, window glass and general merchandise. Quotations should be given c. i. f. port of India. Payment by 30 days or 60 days sight draft. References.

31949.—A merchant firm in France desires to secure an agency or purchase textile machinery of all kinds, industrial chemicals, aniline oils, benzol and allied products, naphthalene, and light and heavy oils. Quotations should be given c. i. f. Bordeaux. Reference.

32308.—A firm in Syria desires to be placed in touch with exporters of

shoe leather and skins, accessories for shoemaking, all kinds of footwear, cotton and woolen goods, thread and yarn.

32310.—A merchant in Uruguay desires to secure the direct representation of manufacturers for the sale of general textiles, hosiery and articles for bazaars, such as metal and enamel ware. Quotations should be given f. o. b. American ports. Payment both in dollars and in wool, hides, etc., sight, confirmed bankers' credit, and 60 to 90 days against drafts. Correspondence may be in English. References.

31814.—An American firm having branches in Egypt and Greece desires to secure agencies for the sale in the Levant of automobile tires, hardware, shoes, shoe leather, electrical supplies, textiles, knit goods and general merchandise. Quotations should be given f. a. s. New York. Payment to be made in New York. References.

31816.—A merchant in Australia desires to get in touch with manufacturers with a view to purchasing hosiery, cotton piece goods and voiles. Reference.

32012.—The American purchasing agents of a firm in Southwest Africa desire to receive catalogues, samples and price lists for merchandise to be shipped to that country, such as soap, biscuits, sweets, tinned fruits, jams, cheese, chocolate, cocoa, coffee, rice, tea, hops, hardware, tools, enamelware, crockery, agricultural machines, automobiles, cement in iron casks, building materials, iron and steel products, and textiles. References.

32509.—A commercial traveler in Spain desires to secure an agency from manufacturers for the sale of dress goods, and woolen goods, such as worsteds and gabardines; silk, imitation silk and better grades of cotton hosiery; underwear, cotton wool, dressed furs and dyes. Quotations should be given c. i. f. Spanish port. Correspondence may be in English. References.

32458.—General importers and exporters in Syria desire to be placed in touch with manufacturers and exporters of agricultural implements, automobiles, machinery, hardware, pumps, engines and tools, bicycles, motorcycles, cutlery, silverware, chemicals and drugs, jewelry, leather, rubber goods, paints and varnishes, pianos, boots and shoes, haberdashery, textiles, copper and tin, iron and steel, kerosene oil, coffee, cotton thread and yarn, silk goods, aniline and indigo dyes, cottonseed oil, and household and toilet soaps.

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### **NATIONAL ANNOUNCES SUPERCHROME BLACK P V**

The National Aniline & Chemical Company, Inc., announces the production of a new color known as Superchrome Black P V, which is equivalent to the highest pre-war Chrome Black standard in fastness. The company says that because of its exceptional leveling, penetrating and fastness properties Superchrome Black P V is especially serviceable in the dyeing of all classes of woolen and worsted goods which require a black or gray of superior resistance. By virtue of its very good potting and decatizing fastness it is particularly adapted for goods requiring these finishing operations. Its solubility and leveling power render it especially adaptable for machine dyeing.

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### **MERGER FORMED BY MONSANTO CHEMICAL WORKS WITH BRITISH GRAESSER COMPANY**

An interesting development as affecting the supplies of crudes and intermediates for American dyestuff manufacturers comes to us from England in the shape of an announcement that a British charter has been granted to the Monsanto-Graesser Company.

The Graesser Company, of Ruabon, Wales, is one of the largest British manufacturers of phenol, anthracene and other crudes. We understand that the new company will continue to manufacture these products in Wales and that the Monsanto Chemical Works, of St. Louis, will act as their selling agents in America. Inasmuch as all American coals are exceedingly low in anthracene content and that the Welsh coals are exceptionally high, it is probable that this will open up a supply of anthracene for American manufacturers which is greatly needed. The development of alizarine and indanthrene colors in this country, for the manufacture of which anthracene is an essential, has been retarded because of the inability of American manufacturers to make sure of a steady source of supply of the necessary crudes. It is believed that the new merger will tend to minimize this difficulty.



## NOTES OF THE TRADE

Egyptian cotton valued at \$15,000,000 comprised a recent shipment to arrive at the port of Boston on the British steamship *Amasis*. The shipment consisted of 14,773 bales of staple.

Prospects for the German wool manufacturers appear excellent, according to a report of the U. S. Department of Agriculture, which showed 5,823,957 head of sheep in the former Empire on September 1, 1919, as against 5,073,478 head on December 1, 1915.

Textile manufacturers of Czechoslovakia have arranged to purchase from American interests 300,000 bales of cotton. The deal involves approximately \$50,000,000, payments to be made in American dollars, one-half due six months after the shipment leaves America and the other half within ninety days thereafter.

Lancashire manufacturers of cotton have been facing a shortage of good quality staple and declare that they intend to become independent of America for their supply of this product. Shipping conditions have made deliveries uncertain, and poor spinning has result-

ed from managers being forced to purchase inferior cotton on the spot.

By virtue of a recently enacted law in Germany which defines as luxuries all articles costing more than 150 marks a kilogram, cotton goods, falling into this classification, is now rated as a luxury, while Persian rugs are not. The law was devised for the convenience of railroad station officials as a means of allowing them easily to determine freight rates, the luxuries being higher.

Announcement has been made by the General Chemical Company and the National Aniline & Chemical Company that extensive additions are to be made to the plants of these concerns at Chester, Pa., for the purpose of developing industries previously controlled by Germany. The former will erect plants particularly for the manufacture of alum, soda and hydrochloric acid, while the National will construct an indigo plant at an estimated cost of \$250,000.

That the United States is not the only country which is waiting for its Government to do something about its dye industry is shown by a recent report from Japan to the effect that the dye market in that country declined following the dissolution of the Diet, which had failed to pass a pending dye tariff bill.

One way of circumventing the strike of the Rotterdam dock workers has been accomplished by a British consumer, Harry Heyman, of Bradford, who recently received 1,200 pounds of aniline dyes from Holland via aeroplane. The dyes, in casks, arrived in perfect condition in charge of Pilot Reginald Kenworthy, who said the dock workers unpacked the consignment of dresses which he carried from Leeds to Holland before taking on the dyes, but threatened to burn his machine on second thought when they realized that they might have established a dangerous precedent. At this juncture the military interfered.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## A SWISS VIEWPOINT

**Wetterwald & Pfister Predict Continued Shortage of Dyes During 1920,  
But Say Germany Will Produce Vigorously When Order Is Restored**

**T**HAT Germany is ready and able to again produce dyes in large quantities, that the ratification of the Peace Treaty is necessary to bring about the stabilization of her government essential to the accomplishment of this, that there is little hope of the world's dye prices going much lower during 1920, and that consumers will gain nothing by holding off their orders, were some of the conclusions reached in the annual report of the Wetterwald & Pfister Company, dealers in chemical products and aniline colors, in Basle, Switzerland.

Incidentally, some interesting facts about the present status of the Swiss dye industry in general are also revealed in the statement of this concern, the American office of which is located at 276 Spring Street, New York City. Among these is the fact that the Swiss dye makers are at the present time producing at top capacity. Consumers are further told that the "hand-to-mouth" policy of

ordering while hoping for prices to go lower cannot but be detrimental to the industry as a whole and to the consumers themselves, for the reason that it is necessary for the manufacturers to know requirements as far in advance as possible in order to make deliveries.

The company points out that at the end of 1918 its report closed with the following words:

"Conditions are, therefore, considerably more normal now than they have been at any time during the war; we look for price concessions and for increased production. We may, therefore, express the hope that we will be able during the coming year of 1919 to fill our customers' requirements more promptly than during the past year. Moreover, with a speedy return of Europe to a peace basis, we believe German production will be resumed during 1919, and as soon as German products become available for the world markets we do not expect that there will

again be a shortage of dyestuffs with prices soaring high above normal."

This year the company states that its report at that time was based on conditions and expectations which did not wholly materialize during 1919. The situation at present is still very much like that which prevailed during the war, and except for small price concessions the same shortage prevails and threatens once more to upset the chemical and dyestuff market and to again encourage speculation, with its attendant high prices. The principal factors responsible for this condition have been, it is believed: (1) Shortage of coal, (2) labor difficulties and (3) the absolute failure of Germany's industry to contribute so far, even in a small measure, to supplying the world's needs.

After the signing of the Armistice in November, 1918, purchases of dyestuffs and chemicals in all parts of the world ceased abruptly. Dealers, as well as consumers, expected a sharp decline in the prices; they desired to wait for the resumption of Germany's industry in the hope of buying Germany's products cheaper, and both had indulged heavily in speculation up to the signing of the Armistice and had accumulated stocks which now had to be liquidated before additional orders could be placed. The Wetterwald & Pfister people were inclined to the opinion that there had been more of this speculation in the United States and Japan than elsewhere, since the market reports of these countries plainly indicated it.

As a consequence, orders on hand were rapidly taken care of and Swiss manufacturers were in a position to even store a small supply of these products in advance to take care of future orders. The Swiss industry was thus enabled to catch up in its production and to make factory improvements. The discontinuance of business was likewise followed by declining prices in intermediates and raw materials, and, as a natural con-

sequence, of the finished products. These price reductions, however, are not comparable to the sharp declines in Japan and the United States, as the latter were due to speculation. The outlook at the end of 1918 fully justified the hope that the return to normal conditions was not far off.

The unexpected delay in the peace negotiations at the Paris conference, however, completely upset the calculations and hopes of the dye-consuming world. Its effects soon made themselves felt in the dye industry in the form of labor troubles and coal shortage. Primarily these factors were noticeable in Germany, where the dyestuff industry came almost to a complete standstill. The largest factories, as the reader is probably aware, are situated within the occupied zone, and their output was, of course, greatly diminished; what little was turned out was taken over by the Entente and failed to reach foreign markets. Those of Germany's factories which were not situated within occupied territory resumed production, but could not return to the pre-war basis on account of coal shortage. Their reduced output had to supply the domestic demand and was kept from the world markets by means of stringent export regulations. Also, such stocks as had accumulated during the war—contrary to all predictions and assumptions—were but small and had to be delivered to the Entente.

Switzerland, though neutral during the war, was no less affected by the failure of the Paris conference to provide for a speedy return to peace conditions. Strikes were declared which kept factories idle for weeks and which brought about increased wages and shorter working hours. The financial loss thus incurred to the manufacturers was passed on to the consumers in the prices of the products. The shortage of coal also proved an important factor in the curtailment of production and the contracts made by Swiss makers in the beginning of 1919 for their requirements of raw materials were

not always properly and promptly filled. Harbor strikes and railroad strikes in the United States and England held up deliveries of such raw materials as were supplied to Switzerland by these countries. Production decreased and was delayed; the demand increased and was more urgent than ever, and as a consequence conditions in the Swiss dye and chemical markets at the present time are not good—in fact there has not been a vast deal of improvement over those which prevailed during the conflict.

Since Germany failed to contribute her products to the filling of the world's requirements, the foreign markets are still depending heavily upon Swiss producers, prices are climbing again and—wherever speculation is rampant and sales are not strictly confined to manufacturers or their authorized agents—prices threaten to approach again the heights which obtained in war times.

Opinions concerning the future tendency of the dyestuff and chemical markets are, of course, divided. Some believe that the world's supplies are exhausted to such an extent that it may take years to replenish them, while others are of the opinion that a goodly portion of the enormous demand is due to speculation and that normal conditions may be expected before the year 1920 has closed.

In the opinion of the Wetterwald & Pfister Company, according to their report, the situation should be considered as existing in two phases, (1) ability to obtain deliveries promptly and (2) price tendency.

The former phase depends almost entirely on the resumption of operations in Germany on a pre-war, or perhaps even larger than pre-war scale. The world's supplies are, in their opinion, not only completely exhausted but in addition to this, the demand has considerably increased as compared with pre-war requirements. To replenish the depleted stocks, therefore, will mean intensive production in the big dye-producing countries,—Switzerland, the United States, Germany, England and France.

The Swiss industry, they point out, is producing to full capacity, and will continue to do so for a considerable time to come. Orders at the first of the present year were being booked for such products as Indigo, 20 per cent paste; Auramine, Rhodamine B, Patent Blue and others—for 1921 delivery!

It is the opinion of company officials that production in other dye-producing countries except Germany is at or near capacity. The question then is: How soon will Germany's products be again available in foreign markets?

From impressions gained by one of the company's representatives on a trip through the German dyestuff district, Germany is ready to produce again in large quantities as soon as she is able to obtain sufficient in the way of raw materials and coal, and as soon as the restoration of peace conditions, including the ratification of the Peace Treaty, has stabilized her present Government.

The ratification of the Peace Treaty is necessary, they hold, in order to en-



courage in the dye manufacturers the necessary enterprising spirit and confidence that production will be unhampered, confidence that further occupation of German territory by the Entente (a necessary consequence of an unstable government or of a government unable to fulfill the peace terms) will not take place, confidence that the manufacturers will be allowed a fair profit on their output over and above taxation, and confidence that the necessary skilled labor will be available and that wage questions, working hours, etc., will be justly regulated by their government. Assuming that Germany's industry will resume operations during 1920, one must not lose sight of the fact, the report adds, that months must pass before her products will arrive in foreign markets and be ready for distribution there.

So far as the price tendency is concerned, the company is of the opinion that this question will—as always—be decided by the demand and the supply. Germany's resumption will influence prices only through the reduction of the demand, and the company officials hold the view that she will not sell her products abroad for less than the Swiss, American or other makers.

"Any hopes," they say, "that the depression of her currency will mean cheaper prices for her products are in our opinion without foundation, and her prices in the future for 'export merchandise' will offset this currency depression."

Since the demand for dyestuffs and chemicals the world over has increased and the stocks are depleted, the combined production of Switzerland, the United States, England, France and Germany will be readily absorbed for a number of years, and for this reason the company feels that it cannot express any hope that prices during 1920 will go much lower than present levels. Summing up, the report offers the advice to consumers that it will be wise to purchase their supplies at the prices now quoted by manufacturers or their authorized agents, and to place their orders as far in advance as may be

possible, so as to insure speedy and prompt deliveries.

By way of a postscript, the company takes the opportunity to answer numerous inquiries from foreign customers, particularly in Japan and China, asking whether it cannot ship merchandise direct from Basle. The explanation given is that the company has in the past been shipping—save in a few exceptional instances—only to its New York office and has left the distribution of the products, both for the United States and for re-export, entirely in the hands of its American representatives. This was due to export restrictions imposed by the Swiss Government, and to the fact that in the case of a few products, agency arrangements exist with which such direct shipments would have interfered. Moreover, the available supplies have not increased, contrary to expectations.

### TEXTILE ALLIANCE TO BRING GERMAN DYES THROUGH ANTWERP

#### Continuation of Rotterdam Strike Leads to Re-routing—37½ Per Cent of Colors Ordered Now Ready

The Textile Alliance, Inc., New York, has received from its Paris representative, Edward S. Chapin, his report covering the period from March 3, 1920, the date of his arrival in Paris, to April 7, 1920.

The following notes on the dyestuff situation are condensed from that report and supplemented by more recent cables and by the statements of A. M. Patterson, president of the Textile Alliance, Inc., who left Paris on April 7.

The sources from which German dyes are now obtainable are as follows:

1. Dyes ordered from the first distribution of dyes impounded under the Peace Treaty, the orders being placed through the Textile Alliance, Inc., as the representative of the State Department and amounting to approximately 300 tons.

2. The portion of the first distribu-

tion available for the United States not already ordered as above, amount to approximately 1,200 tons.

3. The Herty option.

4. The second distribution, which is now under consideration in Paris, which will be equal in amount approximately to the first distribution, or approximately 1,500 tons.

On the 25th of March the status of orders was as follows:

Vat colors ordered, 464,700 lbs.; vat colors shipped or ready, reparation, 130,765 lbs.; vat colors ready for shipment, Herty option, 39,796 lbs; total, 170,561 lbs., or 37 per cent.

Non-vat colors ordered, 1,242,305 lbs.; non-vat colors shipped or ready, reparation, 193,347 lbs.; non-vat colors ready for shipment, Herty option, 152,971 lbs.; total, 346,318 lbs., or 28 per cent.

A cable dated April 11 and received April 13 reports that a conference was held on April 11 between Messrs. Perret and Harrold, representing the State Department; Mr. Chapin, representing the Textile Alliance, Inc.; Mr. von Weinberg, representing the Cartel; Mr. Moellnor, representing Cassella; Messrs. Bosch and Schunon, representing Badische, and Mr. Duisberg, representing Bayer. The cable states:

"Badische submitted pro forma invoices additional vats 96,000 pounds, non-vats 15,000 pounds, and stated orally balance orders against Herty option, barring unexpected obstacles, would be

finished inside three months. Same statement made by Weinberg for Cartel. Duisberg, for Bayer, submitted additional vats 13,000 pounds, non-vats 25,000 pounds, and stated in letter:

"We hope improved state our manufacture will enable us execute remainder your orders shortly."

"Hoechat behind in filling orders. Weinberg promises see them. Our orders now stand:

"Total vats shipped or ready, reparation and Cartel together, 280,000 equal 60 per cent poundage ordered. Total non-vats 390,000 equal 31 per cent. More coming every day."

It will be observed that the amount of importable colors ordered through the Textile Alliance, Inc., under the first distribution was exceedingly small. The aggregate tonnage of all colors available, including those which may be imported into the United States as well as those which may not be imported, was first definitely indicated in the following cable dated March 4 to the State Department:

"Total amount impounded stocks dyestuffs German inventory 15th August in metric tons 21,401. This includes 790 tons intermediates and 1,300 tons mixtures at Bayer plant Leverkusen. Net amount 19,300 tons also contains mixtures and doubtful colors at all other factories. Divide foregoing figures by two to get Allies' share. Net amount comprises over 13,000 types of

*(Continued on page 14.)*

**AMERICAN DYESTUFF REPORTER**

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 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

**WHAT CAN GERMANY DO?**

It is not so hard to see whence those who have been persistently working against the enactment of protective legislation for the American dye industry on the ground that Germany would be able to do little or nothing in a commercial war against our dye makers, derive some of their inspiration. On the face of it, the report of the Swiss dye firm given in our leading article this week could easily appear to the unthinking to offer excellent evidence of the Germans' commercial impotence.

To the unthinking, we said. Rather should it be; to the scheming as material to be worked up for the unthinking. Only the unthinking or the careless could honestly create an interpretation of the document like that. Those who have designs upon the Longworth bill have repeatedly seen in this and similar bits of semi-statistical matter a chance to make use of them, *as far as they go*, for their private ends. In other words, the persistent playing up of one side only of collections of facts like the Wetterwald & Pfister report, at a time like the present, is prompted far more by a desire to influence ultimate action by the Senate than by any altruistic eagerness to make sure that the public is not deluded. In fact, delusion and the creation of a smoke screen behind which the true situation can be artfully concealed are the primary motives of those who have been most active. Their very manner of procedure reveals this plainly.

The report tells us frankly just what difficulties the Germans are facing and

have been facing all winter. Dr. Herty likewise spoke of the shortage of coal and raw materials, and the labor troubles and general lack of stability which obtained. And the Wetterwald & Pfister report also makes it plain that potentially the Germans are just as strong as ever and that they merely lack the ingredients and the calm, settled conditions under which they conquered the dye markets of the world.

These will return, the materials before the calmness in all likelihood—and of the two the materials are far more important to the welfare of the German dye industry, for no matter who happens to be in authority in Berlin it will be efficiently seen to that one of the country's greatest money-making assets and strongest resources is allowed to—nay, *made to*—flourish.

There is no shortage of machinery or plant; the war, with its voracious appetite for explosives and poison gases and yet more explosives, has left the Germans in possession of an undamaged and smoothly working equipment for dye making that has been expanded far more rapidly than would have been the case in the ordinary course of events. And there is no shortage of the German will-to-dominate and will-to-crush all opposition, wherever possible. Nothing but the most stringent and efficient of legislation can avail to stave off the impending onslaught against the American coal-tar chemical industry.

This legislation must be stringent, for the Germans are no babes in arms when it comes to commercial strategy and can pick holes in any wall which is not 100 per cent solid, and it must be efficient and work smoothly with an irreducible minimum of red tape, or the vast textile interests of the country will suffer. Neither of these alternatives are necessary, nor will they be tolerated. There seem to be some members of the Senate and some great leaders of thought in the textile associations who believe that such a piece of legislation cannot be framed. Such beliefs, were they not sinister, could be discounted as childish.

The protective legislation should



clearly and forcefully create in this country the following conditions: Whatever dyes are being at present made by American manufacturers should be excluded from the country for a term of years. Any necessary or desirable colors, for which adequate substitutes are not being made here, should be allowed admission, a year's supply at a time, upon payment of whatever duty is necessary to make their prices conform to the prevailing scale and standard of living which happens to obtain at the time of their admission. If the normal consumption of one of these colors is, say for the sake of illustration, 100 pounds annually, the importation of 100 pounds should be permitted if the color is available abroad, at once. If during the course of that year an American manufacturer should call up the Tariff Commission (which should be arbiter because of its knowledge, its efficiency and its disinterestedness) and say that he was going to be able to deliver 25 pounds of this color

during the next year, then the amount of next year's importations should be limited to 75 pounds. And so on, until our own manufacturers can take care of the domestic demand. By that time they will be well able to fight it out with the Germans or anyone else, and the country will be infinitely the gainer.

Then, if profiteering should develop among our color manufacturers, as so many lungs have been strained to the bursting point in trying to proclaim, let it be dealt with in the same manner that profiteering in sugar or clothing or food-stuffs or tenpenny nails will be dealt with; the public, through the Government, will be able to take care of that. The country cannot afford to be deprived of an absolutely essential industry merely upon the chimerical chance of having an extra profiteer or two added to the present horde.

In this way the dye industry and the explosives industry and the drug industry and a host of others can be built up naturally and surely, and the

dye consuming industries can also be built up unhampered to still greater volume and prosperity.

The reasons why this should be done have been repeated so often in these columns that readers will not in the present instance be burdened with a repetition of them. If there be any who are not cognizant of them by this time, the very best procedure for them would be to go miles off somewhere, crawl unostentatiously into some convenient hole, and then pull the hole in after them. The professional eye of the undertaker has overlooked them for many, many months.

### TEXTILE ALLIANCE TO BRING GERMAN DYES THROUGH ANTWERP

*(Continued from page 9.)*

dyestuff, including duplication caused by two or more factories making same dye."

It seemed to the representatives in Paris of the Textile Alliance, Inc., unfortunate that American consumers should not receive the benefit of the large quantities of desirable importable colors, other than those already ordered, which are still available from the first distribution. There appeared to be no good reason why both importable and unimportable colors should not be taken over and dealt with on behalf of the United States Government in its own interest and in anticipation of the requirements of American consumers, in default of which American rights might have lapsed on April 15 and the colors would then have been added to the quantity available for the second distribution, thereby benefiting other countries at the expense of the United States. Both France and Great Britain proposed to exhaust their quotas in the first distribution.

On account of the extraordinarily short time at the disposal of the American representatives an emergency arrangement was made whereby the cost of the dyes remaining from the first distribution after filling the Reparation

orders should be underwritten, or in other words the cost thereof guaranteed to the United States Government, through whom the order was necessarily placed. The underwriting was arranged almost to the full extent required by A. M. Patterson, the president of the Textile Alliance, Inc., while in Paris in conjunction with the United States Treasury representative, Albert Rathbone. Simultaneously negotiations with the State Department by the Textile Alliance, Inc., representative in New York resulted in a substantial ratification of the arrangements made in Paris. The Textile Alliance is thereby authorized to purchase, if necessary, in its private capacity in the interest of the people of the United States the dyes remaining from the first distribution above referred to on conditions which are entirely satisfactory. It should be stated that in both the Paris negotiations and the American negotiations no private profit shall accrue to the underwriters.

It is expected that more definite and permanent underwriting arrangements will be made in the near future, providing not only for the remainder of the first distribution but also the second distribution.

Great difficulties have been experienced in connection with production and transportation. The output of the German plants has been very limited. There appears to be no doubt that entirely apart from any desire of the German interests to re-establish their business in the United States, they have given assurances both orally and written of their intentions to complete the deliveries on the Herty option as rapidly as the difficult conditions under which they operate will permit. Every effort has been made by the American representatives to satisfy themselves as to these conditions, and they are of the opinion that political, labor, internal transportation and coal conditions have caused and will in the future cause great delays and difficulties to the manufacturers of dyes and will limit the output, especially on the more difficult

and costly colors, which are chiefly desired in the United States.

The ordinary method of transportation from the dye manufacturing districts on the Rhine is by way of Rotterdam. Since the middle of February all shipments by way of Rotterdam have been stopped by the dock strike. The Textile Alliance has had at Paris as one of its representatives a competent transportation man who has carefully considered all alternative routes such as shipments by way of Switzerland and Italy, by way of France, by way of Antwerp and by way of Copenhagen. Each of these routes has presented difficulties that could not be overcome. Shipments by way of France, for example, although entirely safe, are subject to extraordinary delays from labor conditions or shortage of rolling stock on the railways. Apart from Rotterdam the most feasible route is by way of Antwerp but the circumstances attending the inability to obtain through bills of lading rendered it advisable to adopt this route excepting as a last resort. As the Rotterdam strike has now continued for approximately two months with constant disappointments as to its apparently imminent end, arrangements have been made with the White Star Line to ship by way of Antwerp and the Alliance representatives are now in Germany to initiate the new routing, with Governmental assistance.

Annex 6 of the Peace Treaty provides that for a period of years a percentage of the output of the German dye factories shall be available to the

Allies. This section of the Treaty has been somewhat modified in operation by the Reparation Commission. In view of the uncertainties attending its interpretation and enforcement and in view of the conditions referred to above it is the opinion of the representatives of the Textile Alliance in Paris that every effort should be made to secure promptly and use economically those dyes which are not now made in the United States and are not likely to be made here in adequate quantity. The situation is fully realized by the United States Treasury and Reparation representatives in Paris, to whom the Alliance is indebted for their able and energetic assistance.

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### NATIONAL ANNOUNCES PRODUCTION OF THREE MORE

The National Aniline & Chemical Company, Inc., is rapidly adding to its line of colors urgently needed by the textile trade. Among the most recent additions is Superchrome Garnet Y, which is a chrome dyestuff notable for its level dyeing as well as its fastness qualities, and is an adequate substitute for the pre-war Acid Alizarine Grenade R of Hoechst. It can be applied by the tops, meta or bottom chrome method, although the top chrome method gives the best results from the point of view of fastness. It is especially recommended where the fabric requirements call for exceptional fastness to decatizing, fulling, light, pot-



ting and washing in the production of Browns, Bordeaux and Mode shades on woollens and worsteds. It can also be employed for vigoureux printing with Chromium Fluoride, Acetate of Chrome or Chromium Salts.

Another very desirable addition is Fast Crimson G R, a level dyeing Acid Red, corresponding to the pre-war types Amido Naphthol Red G and Azo Phloxin 2G. This color is unusually fast to light, and will leave cotton and silk effects unstained.

One of the new Browns added is Alizarol Brown 2 R, which is a chrome color matching the pre-war types Acid Alizarol Brown B, Palatine Chrome Brown W and Anthracyl Chrome Brown D. This is a top chrome dye possessing good fastness to fulling, carbonizing and light, and is especially suitable for light fancy shades on high-class woollens and worsteds.

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## FRENCH TARIFF HOLDS OFF U. S. TEXTILE MACHINERY

That the reconstruction of textile mills in northern France will be notably affected by the coming presidential election in the United States is the opinion voiced by business men in Paris. They point out that mills, devastated on a wholesale scale by the invading Germans, must be built anew, that American machinery and supplies must be the main factor in this, and that this machinery is not at present coming into France. The reason they say is twofold.

One is the important tariff. In retaliation for the American tariff which makes the import of French goods into the United States practically prohibitive in many cases, the French tariff tries to do the same with regard to American goods entering France. So that there is the anomalous situation that while American machinery is urgently needed to rebuild enterprises like the textile mills, this same machinery is being kept

out by an adverse tariff which will not be adjusted until ours is, it is claimed.

The adverse conditions of exchange make up the second factor unfavorable to the re-establishment of the French textile mills. With the franc now at a figure which makes it worth approximately eight cents, the question of terms becomes serious.

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## ITALIAN COTTON TRADE IS FLOURISHING

Raw cotton from the United States arrived in Italian ports during the months of November, December and January last to the amount of 150,000 bales. Despite the shortage of coal and vexatious labor troubles, the Italian textile mills have been running throughout the winter at near-capacity production. The recent collapse of the lira in terms of dollar exchange has hardly produced a ripple in the Italian cotton trade. So keen in the demand for the finished product that the increased costs of raw material are readily passed on to the consumer. At present Italy is stocked with about four months' supply of American raw cotton. It is learned that a single American firm now has 3,300 bales stored in Genoa and as yet unsold.

The cotton textile trade is undoubtedly the most flourishing Italian industry to-day. Producers have doubtless suffered some losses through sales made in the depreciated currencies of the Balkan States. This has had the effect of rendering the producers more cautious about the acceptance of currencies that are likely to undergo further depreciation, and contracts are now placed for the most part in terms of Swiss francs, Spanish pesetas, or British pounds sterling.

A sufficient commentary upon the flourishing condition of the industry is afforded by the rise in the values of cotton textile shares during the past three months, as indicated in the following examples on the Milan Stock Exchange:

	Dec. 3, 1919	Mar. 3, 1920
Stock	1919	1920
Cotonieri Cantoni .....	638	885
Furter .....	178	251
Turati .....	295	440
Val d'Olona .....	328	485
Val Seriana .....	352	700
Veneziana .....	123	208
Meridionale .....	522	565

## Dye-a-Grams

One sure thing, German dyes are fast—at Rotterdam.

Representatives and Congressmen may be lacking in knowledge of Synthetic Organic Chemistry. Looked for a while as if it was lack of Americanism that was holding up the dye bill.

Fair "exchange" is "no robbery"—but this, of course, depends upon who reaps the benefit.

After perusing past copies of the REPORTER, we "gotta" admit the editor would make a darn poor weather prophet, judging by the number of times he's had the Longworth bill passed.

Why not put the bill in a wheel chair? It might get pushed along during its convalescence. It's been done.

Wine may be scarce. However, we notice a number of brands of New-Port on the market.

Article X is dead. From appearances it would seem as if the dye-stuffs bill was made of "hardier material."

"Without Guarantee." Noticed in fine print on an old German color card, also on a new American color card. Evidently equal to pre-war "types" in every respect.

"Giant Industry" and "From Coal to Dyestuff" sound better than "From Germany to America."

Congress "still" debating the Longworth bill. Still is right—too darn many stills, nowadays.

Our guileless editor declares  
We've "gotta" use discretion  
In voicing thoughts on dye affairs  
—Or make a bad impression.

We'll say it's tough; the problem oft  
Would e'en a Kipling puzzle  
To say enough, in accents soft,  
Yet never bend the muzzle!

G. E. T.

(Note—The above was evidently inspired by editorial warnings against unduly antagonizing the Senate.—Ed.)

Announcement has been made that a dyehouse will be erected at Fort Worth, Texas, by E. C. Manning. The cost of the structure will be in the neighborhood of \$15,000.

### S. R. DAVID IN NEW HOME

Announcement has been made to the trade by S. R. David & Co., Inc., dyestuffs and chemicals, that the office of this company has been moved from 100 Purchase Street, Boston, to 252 Congress Street, corner of Atlantic Avenue, that city. In New England this firm handles the products of the Dye Products & Chemical Company, Inc., and the Lamie Chemical Company, Inc.

### 450 BRITISH TEXTILE FIRMS COMBINE TO PUSH RESEARCH

The British Research Association for the Woolen and Worsted Industry, which was established a year ago with the approval of the Government Department of Scientific and Industrial Research, the (Government) Board of Trade, and the Treasury, is contemplating removing its headquarters from Leeds to Bradford, a suitable building at Frizinghall, just outside Bradford, having been selected for the necessary laboratories and workshops.

The objects of the association are to promote research and other scientific work in connection with the production of wool and its utilization in all the process of the woolen and worsted trades; to assist in producing accessories, substances and machinery likely to be employed in the wool trade; to avoid waste; to improve existing processes, and to utilize by-products as much as possible. Up to the present much of the work of the association has been carried on at the Leeds University and the Bradford Technical College, and even when headquarters are removed research work will be continued in these and other educational institutions in various parts of the country.

The association is not limiting its researches to Yorkshire, but embraces other branches of the industry throughout the country, such as hosiery manufacture in the Midlands, the cloth manufacture of the West of England, the hosiery and tweed trade of Scotland, Irish and Welsh textile manufactures, the carpet trade of Kiddermin-

ster, and the flannel manufacture of Rochdale and district. It already has a membership of about 450 firms and an income of over £12,000 (\$60,000 approximately). The Treasury helps the movement by regarding subscriptions as business costs, free from income tax and excess-profits duty, and by contributing pound for pound of members' subscriptions.

### FUTURE PLANS OF THE ASSOCIATION

In the new premises the intention is to begin with the establishment of a chemical laboratory and a physics laboratory, followed as soon as convenient by the opening of engineering experimental workshops. Here it is hoped to set up a chamber in which temperature and humidity can be scientifically controlled, so that experiments can be accurately made under known conditions. There are said to be only two such chambers in the world, and these are in America.

It is intended to conduct research on the fundamental principles underlying the different processes in the woolen and worsted industries, with an endeavor to put these on a more permanent and scientific footing, so as to supersede many of the old rule-of-thumb methods. The association is already engaged in collecting and classifying existing knowledge, and from these records will deal with the day-to-day problems that arise in the works of its members. This branch will be in the nature of consulting work, but will not interfere with the employment of consultants or scientists in educational institutions, who have often done the work hitherto. It is intended to tackle the problems in a way that will lead to really fundamental improvements in the industries as a whole, for the benefit of members generally rather than of any individual member. In cases where an individual is the sole recipient of the advantage, a nominal charge, covering the actual cost of the consulting work, will be made, in addition to the membership fees.

Up to the present a number of pri-



vate and confidential reports have been issued to members of the association on the work done on its behalf in various institutions, scientific workers having been employed by means of a grant from the association. It is hoped to continue the issue of such publications and also to arrange for lectures and discussions on any new points arising from time to time.

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### FRENCH INTEND TO FOLLOW COLOR MAKING ACTIVELY

The aftermath of war finds France in what manufacturers say is a fair position to bid for that country's share in world trade in dyes.

During the war the *Compagnie National des Matieres Colorantes et des Produits Chimiques* was founded to compete with German dye manufacturers in Paris in case the Teutons should attempt to re-establish their industry after peace was declared. This concern has a capital of 40,000,000 francs. Its largest factory is at Rieux, near Creil, where 2,000 tons of synthetic indigo are produced annually.

Important for the chemical industry also is the flotation of a new company, the *Societe Lyonnais de Synthese et des Produits Chimiques*. According to *L'Outillage*, yet another company has been formed, with the titles "Union des Producteurs et Consommateurs pour le Developpement des l'Industrie des Matieres Colorantes en France." Their object is to distribute to manufacturers the dyes which the Allies will receive from the Germans for five years under the Peace Treaty, and to stimulate the French industry. The capital will be

subscribed half by the producers and half by the consumers.

The construction and engineering work done in France by the American army during the war, and the relief work done by the American Red Cross among the inhabitants of manufacturing towns, will, it is said, be an enormous factor in putting the French factories on a normal working basis.

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Announcement has been made by the Chemical Company of America, Inc., of New York City, that since April 13 the new offices of this concern have been located at 46 Murray Street. The former quarters of the firm were at 176 Front Street.

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Charles A. Loring, for years New York manager for the Powers-Weightman & Rosengarten Company, has given up his managerial duties to devote himself to the North American Dye Corporation, of which he is secretary. Mr. Loring is a large shareholder in the latter concern.

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With a capital of \$40,000, the Aetna Laboratories have been incorporated under the laws of New York to handle and sell chemicals. The headquarters of the company will be in New York City, and the incorporators consist of J. A. Kramer and M. Kauvman, of Brooklyn.

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Under the laws of Delaware the Red Seal Chemical Company has been incorporated to manufacture chemical products. Offices of the company will be located in Dover, and the capital is \$300,000.

### NOTES OF THE TRADE

It is said that the Seward Chemical Company, Inc., of Chicago, Ill., is planning the erection of a new plant for the company in Greenview Avenue, that city. The cost of the structure will be in the neighborhood of \$60,000.

Under the laws of New York the Harbor Chemical Corporation has been incorporated. Head offices of the new concern will be located in New York City. The capital of the new enterprise is \$1,000,000, and the incorporators include D. Price, E. G. Wigan and V. Komarow, of 818 East 163rd Street.

With a capital of \$500,000, the Rock Hill Paint & Cloth Company has been incorporated under the laws of Delaware. The capital of the new company, which will manufacture paints, dyes, enamels, etc., is \$500,000. Head offices will be located in Wilmington.

Plans have been completed for the twenty-fourth annual meeting of the American Cotton Manufacturers' Association, which will be held May 25 and 26 at the Hotel Jefferson, Richmond, Va. Particulars can be obtained from W. D. Adams, secretary of the association, Charlotte, N. C.

With a capital of \$1,000,000, the Zinner Chemical Corporation has been incorporated under the laws of Delaware to deal in dyestuffs, chemicals, etc. The incorporators consist of T. L. Croteau, M. A. Bruce and S. E. Dill.

It has been announced to the trade that Albert E. Chevalier, manager of the Coal-Tar Products Division, the Barrett Company, has been elected a member of the Board of Directors of that company.

R. L. Comstock, formerly plant chemist for the Brown Company, Berlin, N. H., has resigned his position to assume similar responsibilities for the Warner Chemical Company, Cartaret, N. J.

Announcement has been made by the Bernon Worsted Mills that the capital of this company has been increased from \$300,000 to \$500,000. Plans are being made for the erection of an addition to the mills, which are in Woonsocket, R. I., which will double the size of the plant and its output.

The Surgeon General of the United States Army has awarded to the Monsanto Chemical Works, St. Louis, Mo., a special citation in recognition of "their unceasing efforts in the manufacture of chemicals and drugs which had never before been made in this country."

Under the laws of Pennsylvania the Howe-Crest Mill Corporation has been incorporated with a capital of \$10,000 to manufacture and sell carpets, rugs and similar textiles. The incorporators are H. P. Shedd, John McKilney and William J. Fisher, of Philadelphia. Headquarters of the company will be located in Harrisburg, Pa.

With a capital of \$30,000 the Oxford Textile Company has been incorporated under the laws of Pennsylvania to manufacture and deal in textile fabrics. Headquarters of the company will be located in Harrisburg, that State, and the incorporators consist of George Royle, St., George Royle, Jr., and Thomas M. Holden, all of Philadelphia.

With a capital of \$100,000, the Ambler Silk Company has been incorporated under the laws of Pennsylvania to manufacture silk yarns, silk fabrics, etc. Headquarters will be located in Philadelphia, and the incorporators of the company consist of Charles F. Harvey, Elmer T. Lewis and Cornelius O'Neil, all of that city.



# AMERICAN DYESTUFF REPORTER

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By William Scott





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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## GET TOGETHER

Party Politics Will No Longer Delay Action on the Longworth Bill, Once the Senate Is Confronted by a United Demand

MATTERS pertaining to the welfare of the American dye industry have at last reached a pass where there is not the least use in deliberately blinding oneself to facts. Nothing can be gained by pretending that everything is rosy and that Congress is a body of efficient, earnest servants of the nation when such is not the case. The sooner the truth is more generally recognized by dye manufacturers, dealers and consumers, the better it will be and the sooner can pressure be brought to bear which will result in attention to a grave problem. And the fact to be recognized and met is that the Congress, as represented in the present instance by the Senate, is openly and viciously malingering in the case not only of the Longworth bill, but of many other equally vital issues.

Either the Senate is hoodwinking itself most beautifully or else it is deliberately hoodwinking all those who have a right to expect consideration. It is certain that the Senate as a body is not fooling any of its members with regard to its non-productiveness. They

know the reason, and it is inconceivable that they can believe others are blinded. Verily, the suspicion might not be unwarranted that they were acting for motion pictures or engaged in some enterprise of that sort. A group of actors under the Cooper-Hewitts industriously registering profound thought, high resolve, unyielding integrity and so on, could have benefited the situation of our coal-tar chemical industries just as much as Congress has done in the past eleven months.

What a dismal task it would be to rehearse the events of those months. Let us forbear to do so. Let us rather *all* get into the hearse and be unhappy in a companionable way.

Suffice it to say that as each new fancied obstacle presented itself and as each new "excuse" was announced, so developed the ever growing and now sickening certainty that the men who were selected to get things done, to devote their energies and their undeniable talents to the accomplishment of necessary acts for the peace and prosperity of the country, have been at play while

they should have been at work, and that their play has consisted of the puerile and wasteful game called politics.

Every possible allowance has been made by the public for the abnormality of the times and the tremendous strain under which Congress has of necessity been forced to conduct its affairs; every announcement of fresh failure to reach an agreement has been received with respect and the belief that those who had the bill under consideration were facing with fortitude a complicated situation and were gradually acquiring a familiarity with its many ramifications so as to do it justice. These gentlemen cannot complain of any lack of encouragement or good-will. The public has been tolerant and long-suffering, knowing that it could not be forever before the facts would speak for themselves. and their speech be translated into beneficial action. But when it finally develops that nothing is being done simply because those whose duty it is are afraid to meet the issue, it is high time for the public to demand its rights.

There is no other possible explanation for the lack of action. For the past few weeks it has been bruited about that Senator Moses' proposed amendment was acting as the monkey-wrench in the legislative machinery. Ah, well, there always has to be *something* to hang it on. The Moses amendment was opportune, and had the New Hampshire Senator not stepped forward with his proposal there would, no doubt, have been someone else. As a matter of fact, there is not one legitimate excuse for prolonging the period of uncertainty. The arguments against discussing the measure on February 25 now seem, in the light of later experience and knowledge, infinitely childish. Many were the Senators who said they had nothing against the Longworth bill—nothing at all; oh, no! They confidently expected to give it their heartiest support when it came up for discussion . . . Only, it would never, never do to bring it up just then.

. . . Well, hardly! . . . Not right away. . . . Not until . . . etc., etc.

And so the discussion was choked off by artificially created technicalities and by nothing else. The bill had been favorably reported from committee. The Senate refused to consider it and sent it back to languish in committee, where it is yet. And in committee it now seems likely to stay until Providence only knows what campaign issues have been settled.

Perhaps the delay did not begin that way. It would appear that it rather grew out of the piffing and small-town determination on the part of the anti-administration forces and lukewarm administration adherents to make Mr. Wilson just hopping mad. Fearful lest the next election should find the Democratic party able to point to something worth while in the way of legislation and say: "Lookit, fellers, we did that!" certain leaders have set themselves resolutely to head off every promising measure which offered the slightest possibility of mishandling in perfect safety, from the Peace Treaty down. The mere fact that the President has twice seen fit to make a special point of the case of the dye industry in messages to Congress has been enough, it is likely, to queer it with more than one individual member.

Therefore, it is clear that at a time when the country ought to be having of their best, and all their faculties should be concentrated upon the supreme effort to repair the ravages of war as speedily as possible, the members of Congress are sitting back and playing politics for all they are worth.

No longer ago than last week word came of a new tariff measure which is about to become a law in Japan. According to Commercial Attache J. F. Abbott, at Tokio, the main purpose of the action, which is drastic, is to protect and build up Japan's dyestuff trade against American and European competition.

Other war industries are also provided for in the measure. The free list



has been extended to the new and wide range of raw materials. The anti-dumping part of the law is worded as follows:

"When the staple industries of Japan are threatened by the importation of unreasonably cheap goods or by the sale of imports at an unreasonably cheap price, the Government, by Imperial ordinance, after an investigation by a board of inquiry, is authorized to designate those commodities for which during a certain period, special import duties, in addition to the regular schedule, shall be paid, not to exceed, however, the value of the commodity itself.

"Regarding commodities which have thus been designated, which have been already imported and which are owned or possessed by a merchant or his representative, the Government is authorized to levy superduties for such commodities from the seller or his representative in accordance with the preceding paragraph."

Simple, isn't it! And what is more, it will do the work without damaging any of Japan's industries. Some would claim that a provision similar to this applied to the dye industry in the United States would be un-American. But it would not. It would merely be un-German.

One by one this country has seen other nations awakening to the part which the coal-tar chemical industries are to play in the future of the world and pass laws to insure the protection of these industries. And still Congress has remained on terms of almost disgusting familiarity with Morpheus.

One thing—and only one—can be advanced in palliation of the Senate's vacillation. If undeniable proof could be brought before it that a majority of the people of this country wanted the dye industry protected and knew why they wanted it—the latter point not being nearly so important in the eyes of the Senators, however—it would have no choice but immediate enactment.

Unfortunately the general public does not know that it wants a self-contained dye industry here and cannot be ex-

pected to know, in the mass. It should be the duty of the legislators to discover this and then satisfy the desire. Right there is where internal disagreement among consumers and manufacturers has militated against the interests of both in this matter, as well as against the interests of the public at large.

In short, both manufacturers and consumers professed to understand and heed the warning sounded by Dr. Tausig when, as head of the Tariff Commission, he told the industry that no matter what policy was agreed upon, a solid front should be presented when the plan was laid before Congress. He declared that all minor differences of opinion should be settled in private and not dragged into the public hearings which would inevitably be held over the measure. And this warning has been disregarded.

Wisdom would have prompted such a course as the quickest and safest means of accomplishing the protection

*(Continued on page 12.)*

## AMERICAN DYESTUFF REPORTER

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Pointed solely toward the welfare and growth of  
 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

## THE THOMAS AMENDMENT

Any notion which may happen to strike a Senator at an odd moment while in the barber's chair or between bites at lunch, is apparently good enough to be tacked onto the dye bill as an amendment. It will be recalled that just as it was about to emerge from the Senate Finance Committee for its brief baptism of fire on February 25, someone tried to clamp the newsprint measure to it as a means of facilitating the progress of one or the other—we forget which. At any rate, it was a vain hope and it was better for both measures that the newsprint rider was cut adrift.

Now word comes that Senator Thomas, of Colorado, has proposed an amendment to the bill which would impose a tax of 100 per cent on political campaign contributions exceeding \$1,000. This item of information really belongs in the Dye-a-Grams column and we trust that G. E. T. will not overlook it. No comment, however, could be funnier than the news itself. So far as the REPORTER is concerned, the idea is charming, and we are at this moment hard at work upon another amendment which will provide that in future the tensile strength of suspenders, in kilograms, must be as the square of the retail price, expressed in dollars. This seems to us like a good measure; it would allow for deterioration of suspenders held long in stock, and would be as relevant as the proposed Thomas amendment. . . . "Rube" Goldberg, the cartoonist, has been asked to aid in drafting the REPORTER amendment.

Senator Thomas was one of those who opposed the dye bill when it tried so hard to get itself discussed last February. It will be well to leave to him the evolution of a method for the enforcement of his measure, if it passes. What the trade would like to know is whether his present action is to be taken as a knock or a boost.

There are plenty of other bills going through the Senate and still more which will probably secure their passports before the one so playfully juggled back into committee. If Senator Thomas must regulate campaign funds, there are other vehicles ready.

Why can't they let the dye bill alone?

## GREATLY EXAGGERATED

Who was it that started the report that the dye bill is dead? The *Oil, Paint & Drug Reporter*, in one of its Washington dispatches, speaks confidently of the report having been denied by "some men close to the Finance Committee of the Senate."

By that same token, we wish to deny vigorously that Bryan was elected to the Presidency, that the Du Ponts have closed down their plant and that the exports of ice cream to South America showed a gain in 1919. Of course, we don't expect you to believe all that, but we *are* convinced that time will eventually prove the solid truth of what we say.

However, since someone must have declared the bill dead before someone else could deny it, it would be intensely interesting to know who the modern Solomon was. No doubt it was someone equally close to the Finance Committee. Considerable proximity there, we'll claim.

In any case, the rest of the story is to the effect that Senator Watson has returned to Washington after a conference with Senator Penrose, chairman of the committee, who is ill in Philadelphia, and it is stated that Mr. Penrose indicated that he would not interfere with the action or views of the Committee, or of the Senate, on pending tariff bills that have been considered during his absence.

"Whatever the judgment of the committee may be," continues the report, "Mr. Penrose is reported to have said that it is free to carry it out, so far as he is concerned. As a result of this advice, it is said, the dye bill and other tariff bills will be taken up in the Senate at the first opportunity, not to interfere with appropriation bills, conference reports, or any other measure that may attain the status of 'unfinished business.'"

That in itself is interesting and food for thought. Senator Penrose has shown himself to be a well-meaning friend of the dye industry as well as the textile industries, and if his absence has made the deliberations of the Finance Committee sub-committee still more deliberate, it is pleasant to know that he has not changed his mind and that the committee is free to slip the dye bill into the general melee whenever it sees a good chance.

But the absence of Senator Penrose has not militated against the considera-

tion of the bill, which the special committee has had in charge ever since it was referred to the Finance Committee. Nor has any thought of his possible attitude, which was already known to be favorable, kept the Senate from acting upon it.

There are other reasons for that, and while we fear it will take more than Senator Penrose's reiterated announcement that the committee can do what it likes, to galvanize our Solons, nevertheless the information that the report of the bill's demise, like Mark Twain's, was greatly exaggerated, will no doubt cause many a sigh of relief—or anguish—to go up among those who were about to send floral offerings.

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Under the laws of New Jersey the F. P. Maupai Dyeing Company, Inc., has been incorporated to conduct a general dyeing business. The capital of the new company is \$300,000, and headquarters will be located in West New York, N. J.







## GET TOGETHER

(Continued from page 7.)

of the industry and the consumers. Instead, the disagreements have been aired again and again until it has given Congress, having prolonged the discussion out of all reasonable bounds until it has come within the campaign period, the opportunity to make political considerations the excuse for indefinitely shelving the project.

The New York *Commercial*, in a recent issue, recalls with great timeliness the contention of H. Gardner McKerrow, made at the time of the adjourned meeting of the American Dyestuff Manufacturers' Association, March 6, 1918, to the effect that without the co-operation of dealers and consumers, it was inevitable that the new industry would experience difficulty in gaining necessary legislative protection. To Mr. McKerrow, as has been pointed out in these columns ere this, belong the credit of having taken the first actual, physical step toward bringing the industry together. At that time Mr. McKerrow wanted the dealers and manufacturers bound together by forming them into separate sections of the same association, but the dealers failed to show sufficient interest, thereby throwing away whatever chances there were of accomplishing this.

In the light of later events, it seems evident that much good might have resulted from such a combination, for the reason that when the time came for the Washington hearings, the question of what was wanted would have been thrashed out in the association meetings and dealers and manufacturers would have appeared before the committee as a unit instead of two separate interests. Consumer co-operation could have been assured, too, under the McKerrow plan, for which it can always be said that a common platform could have been drafted which would have enabled these three factions to meet separately and afterward jointly to the ultimate satisfaction of all, and furthermore would have provided a machine of maximum efficiency for the

purpose of dealing with Congress, instead of three machines duplicating efforts, entangling their cogs, and confusing the beholders.

Well, the plan fell through, but it is not yet too late for manufacturers, dealers and consumers to get together. It looks as though this would be the only way, in fact, to get the necessary action quickly. Once a unified demand is presented, the Senate will not dare withhold action any longer, election or no election.

Do not be deceived as to the real reason for the delay. The Germans are laughing at the situation, which they thoroughly understand. Moreover, they are busy. Get together!

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## THE PRODUCTION OF INSOLUBLE AZO COLORS UPON COTTON PIECE GOODS

BY WILLIAM SCOTT

This branch of the dyer's art is interesting in that he not only acts as colorist but as color maker as well, the shades being produced upon the fiber as insoluble colored precipitates by the direct chemical action of additions of a diazo solution of an amido compound to an alkaline solution of a phenol—usually B naphthol.

The necessary diazo compound is prepared by the action of nitrous acid upon a primary aromatic amine in suitable solution, and the shades obtained vary according to the particular diazo compound, as well as the amine or phenol used. It is therefore essential that the dyer should have had a fairly good chemical training in order to understand the various chemical reactions that take place, and also to obviate the "rule of thumb" way of working, which often enough is the direct cause of much waste.

The chemical properties and constitution of the ingredients used when properly understood simplify the difficulties met with when producing the insoluble azo colors upon cotton piece goods, and for this reason alone it is worth while to know



something about the substance the dyer is called upon to handle.

In this article it is proposed to deal with the production of meta nitraniline, orange, para nitraniline red, alphanaphthylamine, claret, and benzdine chocolate, first reviewing briefly the chief substances used.

#### DEVELOPERS

Beta-naphthol in alkaline solution is used as one of the component parts in the production of the shades mentioned above. It is a derivative of naphthaline,  $C_{10}H_8$ , and has the chemical formula  $C_{10}H_7OH$ , the hydroxyl group (OH) occupying the beta position. It has a molecular weight of 144 and melts at 122 deg. Cent., and a boiling point of 285-286 deg. Cent. Beta-naphthol of commerce is a dirty white fine crystalline powder, very irritating to the eyes and nostrils and possessing a strong smell of phenol, which its general properties resemble. It does not dissolve to any great extent in water, but dissolves readily in hot solutions of caustic potash or caustic soda, forming the potassium or sodium compound respectively. The amido nitranilines used are the meta and para compounds.

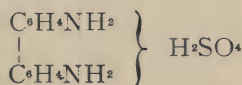
Metanitraniiline is a brown crystalline body, having the formula  $C_6H_4NH_2NO_2$ . The amine group ( $NH_2$ ) is in the meta position to the nitro group ( $NO_2$ ) in the benzene ring. It has a molecular weight of 138.07, and

melts at 109 deg. Cent., and has a boiling point of 285 deg. Cent. It is used in conjunction with beta-naphthol for the production of orange shades.

Paranitraniiline is a yellow crystalline powder of the same chemical percentage composition as the meta compound, the amine group ( $NH_2$ ) occupying the para position to the nitro group ( $NO_2$ ) in the benzene ring. The molecular weight is the same, but variations occur in the physical properties, the para compound having a melting point of 147 deg. Cent., and it decomposes at 285 deg. Cent.; it also readily sublimates on heating. Paranitraniiline is used in conjunction with beta-naphthol for the production of red shades.

Alphanaphthylamine is a derivative of naphthaline, having the chemical formula  $C_{10}H_7NH_2$ , the amine group ( $NH_2$ ) occupying the alpha position in the naphthaline radical. It has a molecular weight of 143.08, a melting point of 300 deg. Cent. and a boiling point of 50 deg. Cent. It has a strong characteristic smell which resembles phenol, and is a strong disinfective. It is used together with beta-naphthol for the production of claret shades.

Benzidine sulphate is diamido diphenyl sulphate:



This substance is usually obtained by the dyer as a gray crystalline powder or in paste form. It is a dibasic acid, having the molecular weight of 282, and is used in conjunction with beta-naphthol for the production of brown or chocolate shades.

#### PARANITRANILINE RED

This is a very bright red shade which has become a serious rival of alizarine red. Although it does not possess the properties of fastness to light and washing that make alizarine red so desirable and has the additional fault that it readily sublimates on heating (if a piece of cloth dyed paranitraniline red is placed between white cloth and pressed with a hot iron the white cloth will become colored red), yet its cheapness and the fact that large quantities are very quickly produced insure for paranitraniline red a ready market.

The method usually adopted is as follows: The bleached cloth is passed through an alkaline solution of beta-naphthol, preferably on the three-bowl padding mangle, consisting of a brass driving bowl and two squeezing bowls of medium hard rubber, the cloth always running face to the rubber bowls. The beta-naphthol solution in the padding box should always be kept at a constant height throughout the run. After passing through the beta-naphthol solution the cloth is squeezed and dried in the hot-air stove. It should then be cooled by passing through the air and plated down ready for coupling, which should be carried out as early as possible after preparing. The following recipe based upon the equation should be used: 10 pounds beta-naphthol R powder, 9 gills caustic soda 80 deg. Tw.,  $2\frac{1}{4}$  gallons neutral soluble oil containing 25 per cent fatty acids. Make up to 40 gallons.

The beta-naphthol is placed into a tub and the caustic soda poured over it; then mix well into a fine paste. Now add 10 gallons hot water and stir until dissolved; add the soluble

oil, and bulk to 40 gallons with cold water. The prepare is used cold.

#### DIAZOTIZED PARANITRANILINE

The diazo paranitraniline solution is made according to the equation:  $4\frac{3}{4}$  pounds paranitraniline,  $\frac{1}{2}$  gallon hot water, 4 gallons cold water, 3 pounds nitrite of soda dissolved in 1 gallon hot water and cooled,  $1\frac{1}{8}$  gallons hydrochloric acid 28 deg. Tw., 8 pounds acetate of soda dissolved in 2 gallons hot water and cooled, 20 gallons cold water. Make up to 30 gallons.

The method of preparing the diazo solution is as follows: The paranitraniline is placed into a tub and made into a fine paste with hot water and cooled with 4 gallons cold water. The sodium nitrite, dissolved in hot water and cooled, is added; then the hydrochloric acid and about 20 gallons cold water. When ready to use add the acetate of soda dissolved in hot water and cooled, bulking to 30 gallons. Owing to the unstability of the diazo compound the solution should be kept as cool as possible.

The coupling is usually carried out at a special machine known as the developing machine, consisting of a shallow box containing two rollers at the bottom immersed by the liquor and one which stands above the surface of the liquor, so that by passing under one roller, then over the middle roller and under the third two immersions are effected. The cloth is then well squeezed, the nip being so arranged that the surplus liquor does not return to the coupling box but is carried away down the drain. The cloth is then given a short air passage over rollers of fifteen seconds' duration, then well washed in cold water, soaped at 150 deg. Fahr. and dried.

The tone of paranitraniline red can be varied slightly by the manipulation of the sodium acetate, and is governed by the fact that the more neutral the diazo solution becomes the bluer the tone of the red, while

the more acid the solution (mineral acid) the yellower will be the tone of red; but at the same time, the less free mineral acid there is present in the solution the less stable it becomes.

#### METANITRANILINE ORANGE

The same preparing solution as given for paranitraniline red is used and the cloth treated in exactly the same manner.

The diazotized metanitriline solution is prepared in accordance with the equation:  $4\frac{3}{4}$  pounds metanitriline,  $\frac{1}{2}$  gallon hot water, 4 gallons cold water, 3 pounds nitrite of soda,  $1\frac{1}{8}$  gallons hydrochloric acid, 20 gallons cold water, 8 pounds sodium acetate. Make up to 30 gallons.

The ingredients are mixed together in exactly the same manner as described for paranitraniline red, and the coupling carried out in the same way.

#### ALPHANAPHTHYLAMINE CLARET

The bleached cloth is run through an alkaline solution of beta-naphthol at the three-bowl padding mangle, using the following recipe:  $14\frac{1}{4}$  pounds beta-naphthol R,  $12\frac{1}{2}$  gills caustic soda 80 deg. Tw.,  $2\frac{1}{4}$  gallons neutral soluble oil 25 per cent FA.

The beta-naphthol is made into a paste with the caustic soda, and then dissolved in about 6 gallons boiling water, afterward bulking to 40 gallons with water; the solution is used at 120 deg. Fahr. The preparing process is carried out as described for paranitraniline red. The diazo alphanaphthylamine solution is prepared

as follows: Alphanaphthylamine paste is first made by mixing 20 pounds alphanaphthylamine,  $2\frac{1}{2}$  gallons hydrochloric acid 28 deg. Tw., 20 gallons water. The alphanaphthylamine is pasted with water and the hydrochloric acid added; then the remainder of the 20 gallons of water is added and the mixture heated up to 240 deg. Fahr., then cooled down to 140 deg. Fahr. and bulked to 40 gallons.

For the coupling solution use 6 gallons of the above mixture, 6 gills hydrochloric acid 28 deg. Tw.,  $1\frac{3}{4}$  pounds nitrite of soda,  $\frac{1}{2}$  pound sodium bicarbonate, 7 pounds acetate of soda. Make up to 30 gallons.

The alphanaphthylamine paste and the hydrochloric are mixed together into a tub, and about 10 gallons cold water added. The sodium nitrite, dissolved in water and cooled, is added to the mixture and well stirred. Add the bulk of the water, reserving enough for the acetate of soda and bicarbonate of soda to be added in solution when ready for using. The coupling is carried out at the ordinary developing machine, when the goods are treated in exactly the same way as described for paranitraniline red.

#### BENZIDINE CHOCOLATE

The bleached cloth is prepared at the three-bowl padding mangle in exactly the same way as described for paranitraniline red, using the following mixture: 5 pounds beta-naphthol R,  $4\frac{1}{2}$  gills caustic soda 80 deg. Tw.,  $1\frac{1}{2}$  gallons neutral soluble oil 25 per cent FA. Make up to 40 gallons and use the solution cold.



The diazo benzidine solution is prepared as follows: 12 pounds benzidine sulphate 40 per cent paste,  $1\frac{1}{4}$  gallons hydrochloric acid 28 deg. Tw., 28 gallons cold water, 4 pounds nitrite of soda, 16 pounds acetate of soda.

The benzidine sulphate is mixed into a thin paste with hot water, then cooled by adding cold water, and the hydrochloric acid added. Stir well, and then add the sodium nitrite previously dissolved and cooled. Add the bulk of the water, reserving enough to dissolve and cool the sodium acetate, which is added to the mixture when ready for using. The coupling is carried out exactly as previously described.

A large variety of compound shades can be obtained by using the standards described above in various proportions. For example: One part paranitraniline red to one part metanitriline orange; two parts paranitraniline red to one part metanitriline orange; three parts paranitraniline red to one part metanitriline orange; four parts paranitraniline red to one part metanitriline orange; one part benzidine chocolate to one part alphanaphthylamine claret; one part benzidine chocolate to two parts alphanaphthylamine claret; one part benzidine chocolate to three parts alphanaphthylamine claret; one part paranitraniline red to one part alphanaphthylamine claret.

As can be readily seen from the above, a large range of shades can be easily obtained; also, by using betanaphthol and amido diazo toluene treated in the same way as described for paranitraniline, brownish red shades are obtained; and by using dianisidine diazotized and coupled with betanaphthol, a dark blue shade is obtained.—*Dyer & Calico Printer.*

The Champion Cotton Mills Company, Gastonia, N. C., in which T. B. Armstrong and S. W. Hendricks, of Gastonia, and R. S. Lewis and S. A. Wilkins, of Dallas, Texas, are interested, will have a capital of \$1,000,000.

## ADDITION OF TEN SHOE AND LEATHER COLORS TO THE FALL COLOR CARD

### Sixty-six Silk Shades and Twelve Wool on Newest Shade Indicator

The fashionable colors that America will feature for the coming autumn and winter seasons have just been launched by the Textile Color Card Association of the United States, Inc., and are shown on the 1920 Fall Season Color Card of America, now ready for distribution to the trade. This is the largest fall card the association has ever issued, showing sixty-six colors in silk and twelve in wool. As a distinct innovation, ten shoe and leather colors make their appearance under separate caption. These are the colors which the Allied Council of Shoe and Leather Industries has chosen in co-operation with the Textile Color Card Association, and illustrates the complete color harmony now being followed between the shoe and textile trades.

According to this forecast, Dame Fashion is going to revel in brilliant colors which she can translate with equal ease into luxurious formal wear or picturesque sport wear. Or for the street wear she can choose all the subdued, restful colors of autumn's foliage.

Twelve evening shades are grouped together and offer a veritable color symphony. The bright pink of the rosebud, the luscious peach, the golden marigold, the garden crocus, the deep blue of the bluebell and the soft yellow of the jonquil blend in perfect harmony with the cool green of seafoam, the turquoise blue of Adriatic, the flaming coral of flamingo, the aquatic green of sprite and with a glittering, daring cherry-red called Folly, tempered by the mellow tones of antique amber.

Plumage shades of golden brown are depicted by gold pheasant, cochin and falcon. A range of five soft, charming beaver shades run from a light almond through the darker tones of

bobolink and sparrow to nut and bark. Three practical dark browns are snuff and autumn, also seal, the well-known standard.

A scintillating sapphire blue is Capri, recalling the marvelous coloring in the blue grotto of Capri, while two darker shades simulate the greenish blues of the Mallard duck.

Aero, hydro and radio, originally appearing on the 1920 spring card, represent the blues of the Copenhagen type; while three soft grays, zinc, pelican and grebe, also from the spring card, again promise continued favor.

The copper tones are excellently represented with a group of three, called copper, cauldron and kettle-drum.

The Egyptian note is strongly sounded. Two deep vivid blues are named Egypt and Cairo, while burnoose, desert and mummy typify the honey color of the Arab's hooded garment, the seared monotone of desert sand and the dull brown of ancient mummy cloths.

One light glowing purple deepens into two dark, rich tones and are named Perilla, Bramble and Huckleberry.

The golden yellow of ochre is reproduced, and with cinnamon and cocoa forms a group of glowing browns.

The exquisite, vivid green of the parakeet bird is cleverly portrayed and is coupled with a darker shade called Billiard.

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Chile, according to recent reports, exported more than 100,000 tons of wool between October 1, 1919, and April 1, 1920. This amount represents an increase of 65,000 tons over the similar previous period.

## Dye-a-Grams

Better to pass the present dye bill than to let the bill die.

—O—

The Secretary of the Treasury is to be the arbiter in both cases. . . . Cases being scarce, we can dispense with the "bitters."

—O—

There is one thing the present Congress can pass—TIME!

—O—

Congress may have a valid reason for delaying the dye bill. Wonder what it is?

—O—

One sure way to make a dye fast is to ship it over our once Government-controlled railroads.

—O—

With reference to the present Administration—where did they move the United States to?

—O—

First Quota of German Dyes Reaches Canada; Manufacturers Elated! No more unevenly dyed or faded goods!

—O—

Sixty cents for German dyes! When this becomes a fact we'll all be Germans.

—O—

Poor Mr. Keene! Sometimes a Keene cutter turns out to have a dull edge.

—O—

If Article X is defeated, we'll sure pass the Longworth bill!

—O—

Dr. Taussig; sounds, sounds.—Wonder if Senator Moses knows anything about sounds?

—O—

Col. John P. Wood. . . . Why doesn't he? G. E. T.

## FIRE DESTROYS HOME OF DR. E. H. KILLHEFFER

The handsome home on the shores of Lake Hopatcong, N. J., owned by Dr. Elvin H. Killheffer, vice-president of the Newport Chemical Works, Inc., was completely destroyed by fire on Sunday morning, April 25. The estate, which Dr. Killheffer bought about a year and a half ago, was formerly the property of Rex Beach, the novelist, and was developed by him into one of the show-places of the neighborhood. Since making the purchase Dr. Killheffer had spent a great deal of time and money in making extensive improvements to the property and adding elaborate furnishings to the house itself.

The fire was discovered on the top floor by negro servants who were in charge of the place during Dr. Killheffer's absence, but it had already gained such headway as to be beyond control. The entire building was burned to the foundation and practically none of its contents were saved. The flames spread to the adjoining woods and it was with difficulty that local volunteer fire fighters kept them confined to the Killheffer estate.

The loss is reported to have been in the neighborhood of \$75,000, a greater portion of which was covered by insurance. The Oriental rugs, hunting trophies and other art objects which Dr. Killheffer had personally collected were, however, of such a nature as to be irreplaceable at any price.

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## NOTES OF THE TRADE

Announcement has been made, through Dr. Charles H. Herty, that on May 1 the editorial offices of the *Journal of Industrial and Engineering Chemistry* were removed from 35 East Forty-first Street, New York, to Room 343, 1 Madison Avenue.

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Announcement has been made to the trade by the Dicks, David Company, Inc., manufacturers of aniline dyes, that since May 1 the offices of the company have been located in the firm's own building, 19-21 North Moore Street, New York City. The telephone number is Canal 4950.

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With a capital of \$250,000, Kaplan Brothers Cotton Goods Corporation has been incorporated under the laws of New York to deal in dry goods. Louis A. Schoffel is the principal incorporator. Headquarters will be located in New York City.

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The General Chemical Company reports total profits for the quarter ended March 1 of \$2,097,006, against \$1,777,114 in the corresponding period a year ago. The directors have declared the regular quarterly stock dividend of 2 per cent on the common stock, payable June 1 to stockholders of record May 20.

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S. J. Calechman has resigned as manager of the chemical and dyestuff department of the Nemours Trading Corporation to enter business for himself with offices in New York City. He will operate under the firm name of S. L. Calechman & Co.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 19

May 10, 1920



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Editorials



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, May 10, 1920

No. 19

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## THE FRELINGHUYSEN SPEECH

Being a Resume of a Document Which  
Should Be Carefully Studied by All Who  
Oppose the Dye Bill—and All Who Favor It

CHARACTERIZING as lacking in vision and subject to "lethargy and indifference" those statesmen who have failed to recognize the necessity for protecting our coal-tar chemical industries during past years, challenging all to show that any combination exists to control the American dye market at the expense of the consumer through the Longworth measure, and declaring his intention to offer an amendment which will extend the time of protection from three years to five, Senator Joseph Frelinghuysen, of New Jersey, on Saturday, May 1, in brilliant fashion led the attack in the renewed struggle to get the dye bill past the organized group of lobbyists which is attempting to kill it by a filibuster.

Up to the time of going to press this group was still hard at it, despite the general agreement in the Senate to dispose of the bill before final action is taken on the Knox peace resolution. Whether the bill's supporters will be successful within a day or two, or whether the issue may be in doubt over a period of weeks, no one can say with

any certainty, although it is being freely predicted by some that the longer time will be required.

At all events, the Senate officially resumed consideration of the measure after a lapse of about two months. The proceedings of May 1 were halted upon the conclusion of Senator Frelinghuysen's speech by the absence of a quorum. During the early part of the following week the filibuster led by Senator Thomas, of Colorado, who made lengthy speeches on Monday and Tuesday in opposition to it, was in force. Great difficulty was experienced at all times in maintaining a quorum, which resulted in shifting the attention of the Senate body to something else. The threat made by the Western Senators on February 25, when the measure was first brought up, is evidently being carried into effect. At the same time there is every reason for being encouraged over the outlook, for there can be no doubt of the fact that there are enough favoring votes in the Senate to pass the bill, once a vote can be taken.



In every way the Frelinghuysen presentation of the case of the dye industry, and of the coal-tar chemical industries in general, was a masterpiece of effectiveness. The New Jersey Senator at all times had his material well in hand; point after point in the condensed evidence was selected from the mass, sharply focused and attention directed toward it with unerring skill, and the resulting picture was an accurate and impressive affair. Only mental astigmatism or spectacles made of German optical glass can ever distort it into anything but a most forceful and telling illustration of a nation's great need.

Very early in his remarks Mr. Frelinghuysen declared the dye bill to be, in his opinion, third in importance as a measure of preparedness to the Army Reorganization bill and the Naval Appropriation bill, both recently enacted. He showed the coal-tar dye industry to the Senate in its true position as the key to the whole organic chemical industry, called attention to its danger through the threat of renewed German dominance, and asserted that with the passage of the dye bill the unhealthy industrial influence which before the war Germany exercised in this country upon countless other industries, could never be restored.

As an example of expressed public policy with regard to the measure he cited President Wilson's two references to needful dye legislation and Attorney General Palmer's warnings of recent date and while he was Alien Property Custodian. "Germany's mailed fist is again appearing in opposition to this bill at the present time," declared Mr. Frelinghuysen. "I am told that agents in this country representing the German Cartel . . . are already conspiring and conniving, and already have their lobby here in Washington to prevent the passage of this bill."

An effective piece of testimony was a letter from Thomas A. Edison in which the great inventor referred to his emergency production of aniline oil, for the first time in this country, which

prevented the textile mills from shutting down. In connection with this, Senator Frelinghuysen said: "I want to bear on that 'to prevent the mills of this country from shutting down.' I mention it to point out the selfishness of those textile interests in this country that are now opposing this measure. They have forgotten the great service rendered to them during the war when the supply of dyes and other products was cut off. . . . They have forgotten that, and now, when they can get some of these raw materials and these dyes cheaper, they are indifferent to the interests of this great industry which was created during the war." The Edison letter concluded as follows: "It is my opinion that our factories should be protected, not by tariff, which would be no protection at all, but by a licensing system, good for, say, four years, at the end of which Congress could, if necessary, make longer extension. I believe that ultimately the Americans will beat the Germans at their own game."

(Signed) THOMAS A. EDISON.

After commenting further on Mr. Edison's contentions, Senator Frelinghuysen resumed: "The story of the dye industry is one that shows the pitiful plight of a great country whose statesmen have lacked the vision to see that encouragement of industrial progress through the development of science was essential to the safety of the country and its people, who had placed their destiny in their hands. What an indictment this is of the lethargy and indifference of our Presidents, Senators and Congressmen during the last forty years in failing to recognize the very essentials of preparedness in advancing the science of dye and coal-tar manufacturing industries."

The speaker dwelt with great force upon the preparedness issue, citing the terrible plight of our manufacturers shortly after the war broke out, when first, colors, and later on, explosives, were badly needed and no organized industry to supply them. "What a hu-

miliating confession of industrial weakness was this!" he said. ". . . Let us reflect on this lesson—the tremendous cost due to our indifference to national preparedness. If we had had the foresight to have considered in advance the signs so clearly outlined, how many lives would have been spared, how much treasure would have been saved, how much more speedily the war would have been ended!"

After pointing out the expedients to which we were forced to resort in order to make T.N.T., ammonium nitrate, chemical gases and other war necessities, Senator Frelinghuysen said: "It is these high explosives that have revolutionized warfare. As soon as the first German shell packed with these nitrates burst inside the Gruson cupola at Liege and tore out its steel and concrete by the roots the world knew that the day of the fixed fortress was gone. The armies deserted their expensively prepared fortifications and took to the trenches. The British troops in France

found their weapons futile and sent across the channel the cry of, 'Send us high explosives or we perish!'"

With further reference to the explosives issue, the speaker concluded: "I am an insurance man and am applying the knowledge of thirty years of experience. Thinking that I might qualify as an expert, I testify that this bill is an insurance for peace."

In response to a question regarding dye profits and prices in this country, he submitted figures showing that in practical effect, no profit has been made out of the dye industry, inasmuch as the manufacturers have practically put back in reconstruction and the purchase of new machinery almost all the earnings. The plight of the small manufacturer was cited and it was shown that whereas the larger manufacturer can afford to wait upon Senatorial delays, having other manufactures to tide him over while the dye portions of his works are shut down, the entire assets of the less powerful maker with

\$100,000 to \$150,000 invested, are being jeopardized by the inaction. Mr. Frelinghuysen pointed out that in the dye industry the plant cost is much higher than in most other industries and the value of the annual production is much less than the investment. Many of the plants have not yet reached the stage where they can show even enough returns to expand, and if they are not aided they will be forced to discontinue altogether, the invested capital lost and the potential gains to the country through their presence destroyed forever. As to prices, the speaker quoted from page 80 of the testimony offered before the Senate Finance Committee, which states: "The average selling price per pound for the production of 1917 was \$1.26 and for 1918, \$1.07. It is doubtful if any other industry can show a decrease in selling price during this period of ever-increasing cost of raw materials and labor, and it may be stated that this reduction was accomplished through chemical efficiencies and healthy domestic competition. Figures are not yet available for 1919, but there is every indication of further progress in this respect."

"Since this testimony was offered," continued the Senator after reading the above extract, "it has been ascertained that the average price of all American dyestuffs over the year 1919 was approximately 84 cents per pound. It is noteworthy that these successive reductions in price were made during a period when this new industry enjoyed what was in effect complete protection from foreign competition and at a time when practically without exception every manufacturing enterprise in the United States showed higher raw material and labor costs."

Senator Frelinghuysen was at much pains to show the Senate how great was the wastage in this country through the continued use of the beehive coke oven in many quarters, which amounts to \$930,000,000 annually. In Pennsylvania alone the annual waste is \$309,000,000; in West Virginia it is \$159,000,000; in Illinois it is \$149,000,000 and in Ala-

bama it is \$32,000,000. "We have forgotten how to economize," he said, "but we have learned how to organize."

Again: "The manufacture of dyes is not a big business, but it is a strategic business. Heligoland is not a big island, but England would have been glad to buy it back during the war at a high price per square yard." At another time he said: "It was decidedly humiliating for our Government to have to beg Germany to sell us enough colors to print our stamps and greenbacks and then to beg Great Britain for permission to bring them over in Dutch ships."

At still another time during his speech, he said: "The United States Census of Manufactures, 1914, shows industries directly and indirectly dependent on dyestuffs, showing a total of 67,585 establishments, 2,143,642 persons employed, \$4,366,213,000 capital invested, and \$5,700,636,000 value of products."

With regard to the question of a possible monopoly of American dye manufacturers, Mr. Frelinghuysen set the entire matter at rest for good and all. He began by quoting a portion of the U. S. Tariff Commission's 1918 report on dyes and coal-tar chemicals, the particularly significant passages of which follow: "The advantages and the dangers of industrial combination have so long been a matter of public discussion that it seems hardly necessary to enumerate them here. It should be pointed out, however, that some such organization seems more requisite to success in the coal-tar chemical industry than in others, and that it has been effected abroad not only with the consent but under the direction of the Government. It is essential that there should be in each plant the perfect integration that is possible only in large-scale operations; an unusual amount of research and experimental work is imperative but it is singularly costly, and therefore duplication is peculiarly undesirable. The industry is unique in the degree to which it depends on men of scientific attainments so high as always to be relatively scarce, so that it



is desirable that the scope of their activities should be extended as widely as possible; improvements and inventions have come and will continue to come in such quick succession that the industry as a whole should benefit by having them immediately available for all engaged in it, and that every plant should have the financial strength which will enable it to put in the new and scrap the old equipment and processes.

"The Tariff Commission wishes to argue neither for nor against industrial combination, but it feels bound to point out that the numerous and mutually unrelated companies now producing coal-tar chemicals in the United States are less prepared for international competition than the highly centralized organizations that have been formed in Europe."

The Senator further emphasized the fact that the present measure would not create a monopoly in any sense.

As to Germany's ability to "come back" and make trouble in the future for our coal-tar chemical industries unless the latter receive adequate protection, Senator Frelinghuysen, among other things, cited a letter from F. Herbert Chamberlain, president of the Heyden Chemical Company, of Garfield, N. J.—which concern was formerly German but is now Americanized. Mr. Chamberlain, upon the completion of a visit to German plants last fall, wrote that he was convinced that the Germans had lied about the number of men working at the Bayer plant, which

company officials stated to be 8,000 employees, 300 chemists and 2,500 clerks. "The indications are," wrote Mr. Chamberlain, "that they are employing double this number. . . . It seems to be quite evident that their statement was fictitious."

At another point in the letter, the writer stated: "We do not seem to realize that the (U. S.) chemical industry has to compete with the low rate of approximately 9 cents per hour per day as compared with our 40-cent to 50-cent rate, which you will appreciate is an enormous difference to overcome."

In concluding his speech, Senator Frelinghuysen said, in part:

"Mr. President, I believe it is the manifest duty of Congress to establish at once a national policy to protect the dye and coal-tar products industry in the United States and to enable the manufacturers of this country to make their arrangements to procure and invest the necessary capital for experimentation and to retain the expert chemists and artisans necessary for continuing their war-time activities for America's markets. . . . In no other line of business do the same conditions exist that prevail in this industry. . . . We are now fighting forty years of German preparedness. While we have, it is true, during the war, due to the temporary embargo, won the preliminary skirmish, our industrial troops are untrained and we must entrench

*(Continued on page 14.)*

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**CHEAP SENSATIONALISM**

As we go to press, word comes from Washington that on Friday afternoon, while the dye bill was being discussed in the Senate, the opposition, led by Senator Kenyon, charged the Du Pont interests with threatening to attack the Presidential aspirations of Major General Leonard Wood unless Senator George H. Moses, one of Wood's campaign managers, withdrew his opposition to the bill.

The charges were based on a letter to Senator Moses from Charles K. Weston, manager of the Du Pont Publicity Bureau, in which the latter told of having heard the New Hampshire Senator speak in support of Wood at Wilmington recently. Mr. Weston set forth that he found it difficult to reconcile General Wood's well-known advocacy of military preparedness and Senator Moses' support of the Wood policies, with the Moses opposition to a legislative measure designed especially to foster preparedness and without which true preparedness would be an impossibility.

The concluding paragraph of Mr. Weston's letter is as follows: "I am outlining a publicity campaign to inform the public concerning the present status of the proposed dye legislation. May I ask you to set me straight as to the apparent contradiction in your attitude toward General Wood's candidacy and your attitude on the dye bill, so that I may be perfectly accurate in what I write?"

"Very truly yours,

"CHARLES K. WESTON,

"Publicity Department."

As the REPORTER views the charges, to which much attention was given in the daily press, absurdity can go no further. That the opposition should see in the Weston letter a veiled threat of attacking the Wood candidacy reveals clearly the extremity to which they have been driven in order to find material with which to assail the proposed measure.

What could be more natural than that Senator Moses, speaking for an advocate of preparedness at Wilmington, a community whose principal industry is wholly bound up with preparedness, and seeking to gain favor for his candidate, should particularly stress the preparedness issue? What could be more natural than that Mr. Weston, after hearing Senator Moses' views in Wilmington and reading of his views in Washington, wholly different, and being engaged on the preparation of a series of informative articles on the legislative aspects of the dye industry, should be curious to know, even as a private individual, just which way Senator Moses leaned?

As a matter of fact the opponents of the dye bill, who have admitted the lack of solidity of their platform by their filibustering tactics of the past week, have seized upon a golden opportunity to inject a bit of cheap sensationalism into their campaign—the same sort of sensationalism employed so successfully by many of our saffron-hued dailies.

Well they knew that anything of that nature would find a ready response among the writers for news agencies which serve the papers of the country, and a ready response from that portion of the public which apparently cannot live without the daily thrills which it draws from the scandal-mongering journals which cater to it.

To see in the Weston letter a threat or an attempt to influence a Presidential candidate or a Senator is merely to drag politics into a discussion in which politics can have no place. The publisher of the REPORTER might just as well be charged with truckling to certain interests because he wrote the Du

Ponts for information regarding what dyes they expected to manufacture next year.

Let us suppose, for a moment, the very worst. Senator Kenyon introduced the letter by saying: "We have heard of the influences at work to defeat this bill. Has the Senator any knowledge of the influences at work to secure its passage?"

If American manufacturing interests would not work to secure the passage of the bill, who would? The measure concerns the interests not only of the dye manufacturers, but of dye consumers and the interests of hundreds of thousands of people engaged in related industries, to say nothing of the interests of the entire country. The opponents of the measure say little about the textile interests which favor its passage.

Supposing a monopoly of American dye manufacturers were created by it. The opponents of the measure affect to shiver and shake and cry out that we

shall all be gobbled up by the huge dye trust. One would suppose that we had never had such a thing as a trust in the country before, and had no laws to deal with it.

Is it not better to have, let us say, such "trusts" as the Standard Oil combine and the Steel trust, subject to American control, than that Americans should be forced to depend upon similar trusts in foreign countries—which are subject to no control but that of their own Governments?

The public will not be deceived by the expedient employed by the opponents of the dye bill last Friday, but it is an adverse reflection upon the press of the country that it can allow its readers to go so long uninformed as to the true status of the dye industry in this country, and then make so much stir over the first bit of alleged "scandal" which comes along.

*(Editorials continued on page 12.)*



## TELLING THE STORY BRIEFLY AND WELL

Simple, vivid and thoroughly adequate in every way was the Frelinghuysen exposition of the case of the dye industry in the Senate on May 1. No technical training or special chemical knowledge is required to see clearly the issue set forth. Not even a special brand of intelligence is necessary to grasp its message; the dullest could not fail to perceive the significance of the principal premise—that it is a case of America first or Germany first. It is so all-embracing that it is doubtful if a single objection could be raised to the measure which is not fully and satisfactorily covered somewhere between its salutation and its conclusion; yet withal it is so condensed as to enable a reader to peruse it in half an hour. In its reflection of conditions as they really are it is masterly, and shows every evidence of careful thought and painstaking determination to make the truth known.

Briefly summarized, it makes it plain to all that the enactment of protective legislation of an unusual nature for the coal-tar chemical industry is a duty which the Senate owes the people of this country; that there is a strong German lobby working against it; that such textile interests as are opposing it are acting selfishly and against their own future welfare; that President Wilson, Attorney General Palmer and Thomas A. Edison have, among a host of others, strongly advocated legislation of this nature; that the majority

of the dye consumers of this country, as well as the American Chemical Society and the American Chamber of Commerce, believe in the protection which it will give; that our future supply of necessary drugs, of which salvarsan and aspirin are examples, depends upon it; that our future military preparedness and the assurance of having a supply of high explosives and poison gases always immediately available, will be utterly impossible without it; that German economic and military successes were due to her corps of highly trained research chemists which, without a self-contained and flourishing coal-tar chemical industry it will be impossible to duplicate here; that the dye manufacturers merely need more time, not perpetual paternalism; that our manufacturers need at least five, not three, years more in order to develop the industry to a point where it can be conducted on sound economic lines; that they have not been profiteering but on the contrary have, while putting practically all earnings back into additional research, works and equipment, succeeded in reducing the average selling price of dyes year by year; that their success has been possible without such a law during the war merely because the war provided a complete embargo instead of the mild form now advocated—a fact which some seem to forget; that a dye monopoly of American manufacturers would not result from the measure, which would, instead, promote healthy competition; that Germany can and will again make us

dependent upon her for drugs, colors and explosives; that the bill will result eventually in the saving of the \$930,000,000 worth of valuable products now wasted annually by the use of the remaining by-product coke-ovens; that mere tariff protection would be absolutely unavailing in the face of Germany's low wages and highly organized production—a system of production which took years for them to develop to its present point of efficiency and which can be duplicated here if temporary protection is granted; that the enactment of the bill will prevent our ever again being humiliated by having 2,143,642 workmen dependent upon Germany or any other country for their jobs; and that the issue is not merely the protection of a single, not very large industry, as industries go, nor of adherence to Republican or Democratic principles, but of America's continuation in or her gradual recession from industrial leadership among the nations of the world.

The Frelinghuysen speech tells the story—completely. Those who want more details should refer to the resume which appears as the leading article in this issue, or better still, if they can spare the time—and it will be well spent—should read it entire in the Congressional Record of May 1, which can be obtained at any library or upon application to Washington. As has been suggested elsewhere, those who fail to understand the situation, and why the dye industry is a thing apart, will do well to clear up all doubts by studying Senator Frelinghuysen's condensed account.

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### THOSE WHO OPPOSE

By their very actions, those who now oppose the enactment of the dye bill in the Senate show unmistakably their realization of the fact that if the measure ever comes to a vote, their cause is lost. They are well aware that a filibuster is their only hope, and are consequently employing it as a last resort. Too well do they know that in a de-

bate on the subject their artificially contrived objections must quickly crumble and fall.

Those who oppose include among their more active representatives Senators King, Thomas, Kenyon, Smoot, Moses and Pomerene. And while it had been the intention of this publication to launch into a bit of more or less bitter comment, and to view-with-alarm their performances—why after all, what need? They may be able to cause much delay and trouble, but they cannot kill off this measure without more valid arguments than they have been able to devise thus far.

Those who oppose believe—or profess to believe—among other things, that if the dye bill becomes a law it will (1) produce a monopoly of color makers dangerous to dye consuming industries, (2) establish in force an un-American principle of protection, (3) fail to add anything really needed in the way of shelter for the industry, since it has continued to expand without

such shelter since its inception, and (4) give dye makers an opportunity to boost prices to the skies.

The REPORTER can demonstrate that if the dye bill does *not* become a law, the resulting conditions will (1) produce a monopoly of [German] color makers dangerous to dye consuming industries, (2) establish in force an un-American principle of protection [for German interests at the expense of this country's welfare], (3) fail to add anything really necessary in the way of protection for the industry, since it has continued to expand without such shelter since its inception [only because it has enjoyed another and still more absolute form of shelter, which is about to end when Peace is declared], and (4) give [German] dyemakers an opportunity to boost prices to the skies [after they have first strangled our industry by the ruinous price cutting which their organization will enable them to carry out].

Those who oppose have listened to Senator Frelinghuysen's speech, or, if they were engaged in absenting themselves while he talked lest there should be a quorum at the critical moment, have certainly had an opportunity to read it. Senator Frelinghuysen's speech could not be misunderstood by anyone—nor could it be effectively answered, either. Their present childish display of opposition to the inevitable will of the people is not the result of ignorance of the facts nor failure to understand the situation. It is not honest opposition.

Those who oppose, if not conniving with the German interests in Washington, are, then, unconsciously serving those interests well.

## THE FRELINGHUYSEN SPEECH

(Continued from page 9.)

for an extended period. . . . They (the manufacturers) do not ask forty years' Congressional support. . . . They did ask fifteen. We have given three in this bill. In my opinion, three is too short. These manufacturers, these chemists, these artisans should have at least five years in which to perfect their program for meeting and defeating the chemists and artisans of Germany who have been trained for nearly half a century. I shall offer an amendment extending the time to five years. After that period shall have elapsed these manufacturers can develop the American industry and increase American prosperity, and then will be willing, I am sure, to have the embargo lifted and the tariff abolished, facing Germany in open competition, confident that the result will be the 'survival of the fittest,' and the fittest will be the American industry. . . .

"We would be derelict in our duty as Senators were we to allow a peace to be consummated and Germany permitted to regain on this continent the control and monopoly of dyes and coal-tar products which she formerly enjoyed, thus placing ourselves once more in her power and subservient to her will.

"Some have hinted that we will create a monopoly and unfairly protect certain corporations in this country. This bill does not create a monopoly. But it does safeguard and preserve the knowledge and science, the genius and achievement, the energy and experience gained during the war. . . .

"I scout the sentiment expressed on



this floor that this bill will establish a monopoly in America. I challenge anyone to show that any combination exists to control the American market at the expense of the consumer through the enactment of this bill. . . .

"Keen rivalry and business competition will exist here in America for the trade of the American consumer, but even if remotely such a monopolistic evil should creep in, *we have ample laws on the statute books to protect the public against such abuses.* . . .

"Let us not get confused, Senators, between the two schools of thought in this chamber. This bill does not involve the question of free trade or protection; it does not involve the question of Democratic or Republican policies; it involves the great policy and issue of America first. . . .

"I am still suspicious of the resourcefulness, the selfishness, the cupidity and intrigue of the scientist and manufacturer of Germany. I do not want to return to that humiliating period which existed before the war, when the color of the dresses of the women of America, the shades of their stockings, the color scheme of their shirt waists, when the leather in our chairs, the stripes in our clothing, the rubber in our automobile tires, the tint of the curtains at our windows, the paint on our houses, the color of our carpets, yes, even the red and blue in our Star Spangled Banner, bore everlasting evidence that their ingredients were made in Germany. . . .

"Rely on Germany for all these arti-

cles? Never in my life, while I have the breath to vote against it!"

### KENTUCKY COLOR & CHEMICAL COMPANY BEGINS PRODUCTION

Sevier Bonnie, vice-president of the Kentucky Color & Chemical Company, Inc., states that their fine new plant at Thirty-fourth and Tyler Streets, Louisville, is at last turning out an exceptional quality of colors. He says: "Our results with the first batches of dry color exceed expectations. The colors are remarkably strong and clean." The fact that the company has installed the very latest word in modern machinery, filters, mills and mixers, and that it includes in its management expert color makers of long experience and recognized standing, would account for these very gratifying results. The personnel of the company officials consists of Arthur W. Clark, president, who was well known during his connection with the Heath & Milligan Manufacturing Company, of Louisville, as head of its dry color department; Dr. George A. Goodell, secretary, who was in charge of the Sherwin-Williams Company's Kensington dry color plant; Sevier Bonnie, vice-president, and Robert Bonnie, treasurer. The Bonnie brothers are widely known and successful business men of Louisville.

## PURPLE DYE FROM SHELL-FISH

On the Pacific coast of Costa Rica, says U. S. Consular Agent John Saxe, Puntarenas, Costa Rica, especially in the region about Cocos Bay, there abounds a kind of shellfish called the "nacascal," from which a fine purple color is obtained. So far no way has been found for preserving this dye, and the industry has remained in the hands of the few old people who take the trouble to dye a few ounces of thread every summer. The process is very simple. On picking up the shell from the beach or detaching it from a boulder, the gatherer blows her breath into it, whereupon a few drops of a greenish liquor ooze out. This liquor is collected in a clamshell, and after a sufficient quantity has been collected the thread is passed through it, soon after assuming, on exposure to the sunlight, a beautiful purple color which is absolutely fast after it has turned purple. It is thought possible that the dye turns fast only on exposure to the air and that the liquor could be preserved by keeping the air away from it. There is little doubt that this industry of dyeing thread could be extended to greater proportions if an extensive demand at good prices could be found for the dyestuff.

## Dye-a-Grams

What Can Germany Do?—*Headline.* She's been doing pretty much as she pleased.

With the German will-to-dominate so well known, it is hard to understand the inability of Congress to realize the fact.

The German dye industry is not having any smoother sailing than our merchant marine had during the war.

The selling prices of some American dyes may be high, but what if Germany ever gets a chance at the American consumers!

Considerable Swiss (?) dyes are finding their way into the U. S.

Descriptive data of some American dyes are as scarce as some types.

It is pleasing to note the uniformity of several American types—but why the uniformity in price?

Labor may be worthy of its hire, but what if it goes any higher!

Radical prohibition, welfare work, Government investigation and social uplift are showing results.

Actions may speak louder than words—Congress is proficient in one and deficient in the other.

S. R. D.—Some Reliable Dyes!  
G. E. T.

## INQUIRY DEPARTMENT

All classes of chemical work or advice relating to artificial colors, natural dyestuffs, dyewoods, raw materials, extracts, intermediates, crudes, or dyeing chemicals and accessories in general, will be carried out for readers and subscribers of the AMERICAN DYESTUFF REPORTER by this department.

Inquiries of a minor character will be answered on this page, while major matters involving personal investigation, analyses, perfected processes and working formulas, will, if desired, be treated confidentially through the mails. All questions, materials for analysis or letters leading to the opening of negotiations for special work will receive prompt attention if addressed to Inquiry Department, American Dyestuff Reporter, Woolworth Building, New York City.

E. P.—*Question*—Will you kindly inform us of the manufacturers of Alphanaphthylamine in this market, besides the Newport Chemical Works, with which we are already acquainted.

*Answer*—In addition to the Newport Chemical Works, both the Barrett Company, 17 Battery Place, and E. I. du Pont de Nemours & Co., 21 East Fortieth Street, manufacture Alphanaphthylamine, but we believe that both of these concerns are sold up through May.

A. D.—*Question*—Will you kindly give me some information relative to the use of a spectroscope in shade matching? What I want to know particularly is: What solution corresponds to, say, a 3 per cent dyeing? Also, what thickness should it be and just how should it be illuminated? Can a spectroscope be used for matching shades in place of usual methods of dyeing samples?

*Answer*—We are inclined to think that the instrument you have in mind is not a spectroscope at all. A spectroscope is used primarily to determine the elements present in a composition by means of the refracted rays which the elements give off when in a state of fusion. It has nothing whatever to do with colors or color matching.

The instrument you have in mind is probably the tintometer, which is useful in laboratory work for determining the relative values of pure solutions of pure colors, but which has no value for mixtures or compounds. As a matter of fact, this instrument, though most interesting from a scientific standpoint, has very little practical use for the dyer. It is by no manner of means a satisfactory substitute for the actual dyeing of samples. The intelligent use of a tintometer requires a great deal of experience and experimentation, and if, as we imagine from your letter, you had it in mind as a short cut to obviate the necessity of dyeing samples, we do not believe you would find it of any practical value.

M. C.—*Question*—I would be interested to know a satisfactory process of dyeing silk goods striped with artificial silk. These goods are to be dyed in the piece and have to be striped in the regular soap liquor. I have tried dyeing same in an acetic acid bath, using basic dyes, but the artificial silk remains almost white.

*Answer*—In treating these goods you ought to boil off as usual and dye with direct colors that give even shades on both fibers—in other words, good union colors. This is being done daily on silk

and half silk hosiery with artificial silk plating, and is very simple when you have the right dyes.

Any one of the leading dyestuff manufacturers should be able to supply you with the necessary colors, but if you have any difficulty we should be glad to recommend specific sources of supply.

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The new International Chamber of Commerce, projected at the International Trade Conference at Atlantic City last October, will be formally organized, it is announced by the Chamber of Commerce of the United States, at Paris during the week of June 21. Invitations have been sent out by the American group of the International Organization Committee to various business and industrial associations, asking them to appoint delegates to participate in the organization meeting. About 100 American delegates are expected to attend.



## NOTES OF THE TRADE

Canadian dry goods stores are making use of posters to inform their customers that the colors of goods will not be guaranteed. The goods, which are dyed with Canadian-made colors, have occasioned a number of cases of dissatisfaction among purchasers.

The Spanish Government has announced an increase in that country's tariff on dyestuffs. Dyes derived from coal tar in powder or crystals will, under the new ruling, be taxed at four pesetas a kilogram, as against one peseta formerly. If the dye is in the form of a paste or liquid, the duty is two pesetas.

With a capital of \$1,000,000, the Basic Chemical Corporation of America has been incorporated under the laws of New York. Headquarters of the new company will be in New York City, and the incorporators consist of I. F. and E. O'Beal and C. Murray.

The Ellsey Dress Manufacturing Company, Ltd., has been formed in Toronto, Canada, and has been granted a charter for the purpose of acquiring

the business of this firm and to manufacture and deal in all kinds of clothing. The incorporators consist of S. King, O. H. King, S. H. Loftus, Harold Cresiman and Effie Lane, all of Toronto.

Dr. H. S. Riederer, formerly engaged in commercial chemical development at the experimental laboratories of the Atlas Powder Company, is now with the United Color & Pigment Company, Newark, N. J.

Announcement has been made by the Clark Thread Company, Newark, N. J., that the capital of this firm has been increased from \$12,500,000 to \$18,000,000.

Announcement has been made by the Yates Bleachery Company, capitalized at \$200,000, that this concern is about to take over the property of the Flintstone Tannery, Flintstone, Tenn., where a large factory building will be erected. It is the intention later to add a large mercerization plant. Much of the special machinery used in processing cotton by the company is the invention of A. R. Yates, one of the incorporators.

Announcement has been made by the Reliance Aniline & Chemical Company that the capital stock of this concern has been increased to 2,500 shares of first preferred at \$10 each; 5,000 shares of second preferred at \$10 each; 100 shares of common stock of no par value, and an active capital of \$126,000.

Announcement has been made that the Rhodia Chemical Company, 135 Cedar Street, New York City, has been made the agent of the Chemical Foundation, Inc., for the manufacture and sale of monomethylparamidophenol sulphate, under the registered trade-mark "Metol," and that the use of this trade-mark by any firm not so authorized by the Chemical Foundation will be considered an infringement of rights.



# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 20

May 17, 1920



THIS IS THE MAY EXPORT  
NUMBER

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Sympathy for Germany's  
Plight and Questioning of  
American Manufacturers' Pa-  
triotism Mark Colorado Sen-  
ator's Attack on Dye Bill

## Fixed Policy Needed for Chinese Market — What the Public Is For — Doubt- ing Thomas

Editorials

## Foreign Trade Opportuni- ties





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## SEN. THOMAS SEES IT THROUGH

Sympathy for Germany's Plight and Questioning  
of American Manufacturers' Patriotism Feature  
Colorado Senator's Denunciation of the Dye Bill

**L**EADERS of the REPORTER are this week invited to meet Senator Charles S. Thomas, of Colorado, self-styled protector of American consumers of dyestuffs, objector to the harshness of some of the provisions of the Peace Treaty as applied to Germany, indefatigable orator, and able spokesman for the strong-arm squad which has been engaged in trying to strangle the dye bill in the Senate.

So far as the present session is concerned, opponents of the bill appear to have "gotten away with it." On Saturday, May 1, consideration of the bill was resumed from February 25, and this day saw the presentation of the case of the dye manufacturers by Senator Frelinghuysen, detailed in these columns a week ago. On Monday, May 3, the bill was again brought up as unfinished business, and at this juncture Senator Thomas began an attack upon it, and upon the testimony of its advocates, which was not concluded until the following Friday. On Monday,

Senator Thomas spoke, with interruptions, for two hours. On Tuesday, when consideration of the bill was twice resumed, he spoke for an hour and a half, and again for half an hour, the meeting breaking up against his protest when the absence of a quorum was shown. On Wednesday he spoke for two and a half hours, during the latter part of which some minor business of the Senate was transacted. On Thursday the bill was again brought up but not considered and on Friday Senator Thomas concluded his speech after having consumed somewhere in the neighborhood of eight hours upon the floor.

It was on Friday that the mild stir was made by Senator Kenyon's reading of the Weston letter of inquiry to Senator Moses, and the laborious attempt on the part of the filibusters to prove by this personal matter that the Du Pont company was "threatening" to withdraw its alleged support of Major-General Wood's Presidential aspira-

tions. This incident was followed a little later by a Senatorial row based largely upon personalities which finally terminated when Senator Frelinghuysen, addressing the chairman, requested that Senator King, of Utah, another opponent of the bill, be called to order for "an imputation against my character and reputation." It was, as readers may surmise, by this time necessary to send outside for absentees to make up a quorum to pass upon this, and when a transcription of Senator King's remarks was brought to him he admitted them to be "susceptible of an interpretation which I do not at all mean," and they were, accordingly, ordered expunged from the Congressional Record.

On Saturday Senator Thomas again came to the fore with his "revelation" of the Du Pont company's "monopolistic" endeavors to defend itself against the German dye Cartel. After the manner of one bringing to light a hellish scandal he aired the alleged contract with the Levinsteins and tried to show that a world domination of the dye market was planned at that time. He was forced to admit, however, by Senator Nugent, that whatever agreement there was applied only to dyes patented by the Du Pont and Levinstein companies. The matter relative to his charges which Senator Thomas read into the Record was printed about a year ago by our neighbor, *Drug & Chemical Markets*, but the Senator from Colorado made something of a mystery of it, declaring that he had received it in the mail since the recess of the Senate the day before, and, according to the statement of one New York newspaper, was "not at liberty to state its source." He said in answer to inquiries as to the present state of affairs: "However, Mr. President, it is the commencement, the initiation, of the monopolistic condition to which I directed the attention of the Senate on yesterday," and that the "remote purpose" of the dye bill was, therefore, "little short of infamous." Senator John F. Nugent, of Idaho, a supporter of the bill, obtained the floor at this juncture, and—

"I suggest the absence of a quorum," promptly announced Senator King, sensing trouble.

A quorum, however, proved to be on hand, and Senator Nugent was allowed to speak in defense of the bill until adjournment.

On Monday, however, when an attempt to resume consideration of the bill was made, it was "temporarily laid aside," to quote the language of the Congressional Record, but in reality it was shelved for the balance of the present session. That, at least, is the opinion of those who best know the plans of the Senate; hence, the filibuster may be said to have been successful in delaying the bill. The measure has not, however, as one shining representative of the daily press has declared, been "abandoned." For that statement an ill-informed editorial writer of the New York *World* is alone responsible.

Senator Thomas's speech against the dye bill consumed eight hours and is spread over thirty-four pages of the Congressional Record. Senator Frelinghuysen's able summarization of the case for the industry consumed less than two hours and occupies but eight pages. To the discerning, this tells the whole story in a nutshell.

High lights in Senator Thomas's eight-hour effort included a liberal use of the Irving A. Keene utterances in support of his contention that the German dye supply is a mere "phantom." He harked clear back to 1882 to show that manufacturers had ere this asked for protection. He declared that the dye industry existed here "in some magnitude" before the war, but omitted to call attention to the fact that what constituted the "industry" in those days was obliged to confine itself largely to the mere assembling of finished intermediates made in Germany. He cited the testimony of Col. John P. Wood in an attempt to indicate that a self-contained explosives industry was not dependent upon a self-contained dye industry, but could exist and grow up separately, and he assailed the patriotism of dye manufacturers and sought

to discredit their motives for engaging in the industry in the early days of the war embargo.

The speaker apparently centered his fight around the contention that he was not opposed to protection for the dye industry, but he denied that the present bill was necessary. He held that the universities could furnish us with plenty of chemists without depending upon a dye industry, and that needed drugs and medicines derived from coal tar could continue to be evolved notwithstanding German competition. Again and again he attacked the reliability and motives, as well as the intelligence, of those who had testified in favor of the bill before the Senate Finance Committee, and asserted that "for dye purposes, Germany does not exist."

He was firm in his conviction that American manufacturers were planning to jump their prices even as the Germans had done when they held the reins of power and reiterated his belief in the sufficiency of the present tariff rates as provided in the Act of September 8, 1916.

He painted a highly affecting picture of the economic plight into which Germany has fallen and the vast debts under which she is groaning, and referred in the same breath, ironically, to "the poor, unfortunate Americans, inspired by the spirit of patriotism, who came forward in the hour of their country's need and invested in this business," as a means of showing how ridiculous was the thought that *they* might go into bankruptcy while Germany had so much to bear.

In further reference to this portion of Senator Thomas's speech, the following extract is illuminating:

"Mr. President, I cannot conceive of a more cold-blooded proposition. Germany is down and out for the present and the heel of the conqueror is upon her prostrate form. She is where she deserves to be. The Allies have imposed upon her indemnities the amount of which she does not know until the Reparation Commission shall have taken an inventory of the Empire and

determines how much blood can be taken from her without resulting in dissolution. We know of specific sums amounting to one thousand million marks in gold, which is equivalent of twenty-five thousand millions of dollars, twenty thousand millions of marks to be paid on or before the first day of May, 1921. She can pay these sums provided her industries are resuscitated, thus giving her articles of merchandise which she can exchange with the other nations, or the Reparation Commission may take whatever in their judgment can be made to realize this enormous sum. She never will pay those indemnities in the latter way. She must pay them in gold, which she has not, or in merchandise, which, under the onerous terms of the Treaty, she cannot manufacture.

*"You say it serves her right. I shall engage in no quarrel upon that subject, although I do not think so; but the brutal fact is that having imposed these*

*(Concluded on page 12.)*



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Pointed solely toward the welfare and growth of  
 the American Dyestuff Industry. Unbiased contri-  
 butions appreciated.

A. P. HOWES, President  
 LAURANCE T. CLARK, Editor

## **FIXED POLICY NEEDED FOR CHINESE MARKET**

What follows is recommended to the attention of filibustering Senators.

Heu En-Yuan, Chinese president of the Sino-American Bank, has told the National Foreign Trade Council that his countrymen are rather chary about placing either business or financial dependence upon Americans seeking to trade with them. Let him tell you about it:

"About once in every five years American business men become interested in China, but this interest does not last long. Something always happens to frighten the bankers away. First it is a change in political affairs at home; then international politics is to blame; then again the business men and financial representatives sent to China become impatient at the delays and intrigues always present in Chinese affairs, grow tired of the interminable negotiations, and go home."

Very interesting to American dye manufacturers, because China will be one of the markets to be disputed with the Germans when they get down to work again. "There is plenty of room for all who wish to come," declares Mr. Heu En-Yuan, "but the general belief is that the newcomers have not the necessary patience to deal with the Chinese and to wait two or three years for definite results."

With the same painstaking care that they set to work to build up their huge dye industry before they began to look for profits, the Germans spent endless months in studying the needs and pref-

erences of Chinese dye consumers—which are not the same as ours, nor these of the Latin-Americans, nor the English, nor the French, nor yet those of the Germans themselves. They knew that two or three years, or five years, or ten years, was not much of an item when their goal was always plainly in sight; they did not try to argue their customers into another way of doing things, but instead took infinite pains to make their merchandise look home-like, even down to the smallest detail of the design on a container. They discovered that the small Chinese dyer, even as you and I, rather fancied the coin of the realm, and thereafter every can of a certain size was found to carry, along with the color, a single "cash"—a piece of money valued at about one-tenth of a cent. Bribery, yes, but worth thinking about as an illustration.

China, with its awakening population of more than 400,000,000, is a field that the American dye manufacturer cannot afford to neglect, nor get impatient with, nor try to "educate" into strange, foreign units of weight and measurement. The Germans reaped a golden harvest by their methodical efforts to cater strictly to their prospects, but they have been long away. They are still favored, but a large share of the Chinese trade now belongs to anybody with gumption enough to go and take it.

American manufacturers are learning rapidly, but it is certain that they can never play the waiting game necessary until they know what policy their own Government is going to pursue five or ten years hence.

## **WHAT THE PUBLIC IS FOR**

George H. Moses, campaign manager for Major-General Leonard Wood, speaks long and feelingly on the necessity for military preparedness when addressing employees of a munitions plant; George H. Moses, United States Senator with large cotton interests to propitiate, initiates legislation calculated to denature the dye bill, vital to modern military preparedness, and "resents" all questions relative to what George H.

Moses, private citizen, may think when alone.

All of which may or may not be embarrassing to the Honorable Mr. Moses, but which is certainly entertaining and instructive for the rest of us. The New Hampshire Senator says his proposed amendment is "elastic"; the Tariff Commission, having no official interest either way, says it is impossible, while the Senate agrees to lay both bill and amendment aside for the balance of the session—or in other words, until after election. The public, with accustomed reverence for verbal or physical dexterity, looks on with the silent awe of a peasant watching a juggler at a fair.

And that is what the public is for: to cast votes and to look on, with never a look in.

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### DOUBTING THOMAS

When a man struggles hard to work his way through college or to acquire an education in some other way, as

Abraham Lincoln did, he usually values that education more than the man whose parents smooth his path, and he is all the more likely to try and turn it to some practical account in future years. He values it because it came hard.

The net cost of the war to the United States was \$22,625,252,843 in hard cash, representing the bill for supporting a mighty host of men and women who would have been producing useful things under ordinary conditions. It also cost us the lives of some 50,000 young men in their prime, infinitely more valuable to the country than many times the money, and, unlike it, impossible to replace. The war is supposed to have been a liberal education to us, and anyone will agree that it was a mighty expensive education.

Those who are unable to remove their eyes from the dollar sign, think of the money; those whose sense of values is better, forget the money and think of the lives. The point to be remembered







## DOUBTING THOMAS

*(Concluded from page 9.)*

is that the dye bill filibusters are trying their best to fling this dearly bought knowledge away.

Senator Charles S. Thomas, their leader, some of whose views may be found elsewhere in this issue, appears to value it very lightly. He doubts the wisdom of allowing American dye manufacturers to develop if their development means limiting too greatly the earning capacity of German dye manufacturers, since Germany has grievous debts to pay. He doubts whether the comparatively mild treatment accorded Germany serves her right. Also he doubts the patriotism of American dye manufacturers and the motives of those who ventured to testify in favor of the dye bill.

The war is supposed to have taught us that there were several serious gaps in our economic and military make-up, one of the most important being the dye industry. Senator Thomas doubts whether it is even necessary to have a dye industry here in order to maintain our place among the nations.

But most of all Senator Thomas doubts the ability of his henchmen to defeat the Dye bill if it can ever be brought to a vote.

## SENATOR THOMAS SEES IT THROUGH

*(Concluded from page 7.)*

indemnities we propose to cut off the possibility of her re-engaging in international commerce by passing a series of drastic enactments which under no circumstances would we ever have passed if there had been no war, in which case

they would have been far more important and essential than they can be at present."

The italics are ours. The sentiments are Senator Thomas's. He says, in effect, although he may not know it, that if it is a question of strangling the American dye industry or the German dye industry, by all means give the Germans prior consideration since they are down and in hard straits. Give them a chance to build up their military supremacy again, if in that way they can only discharge their debts.

The arguments of Senator Thomas will be further taken up in a subsequent issue. There seems to be plenty of time now. So will the arguments of Senator Nugent, who responded effectively to the Thomas dissertation.

It looks like a busy and interesting summer ahead.

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Under the laws of New York, the Harlem Chemical Company has been incorporated with a capital of \$25,000. Offices of the new concern will be located in Brooklyn. The incorporators include S. W. and M. Hecht.

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Recent dividends by leading German chemical companies have been announced as follows: Chemische Fabrik Helfenberg, 15 per cent; C. A. F. Kahlbaum, 25 per cent; Chemical Works, formerly H. Scheidmandel, 15 per cent plus a bonus of 15 per cent additional.

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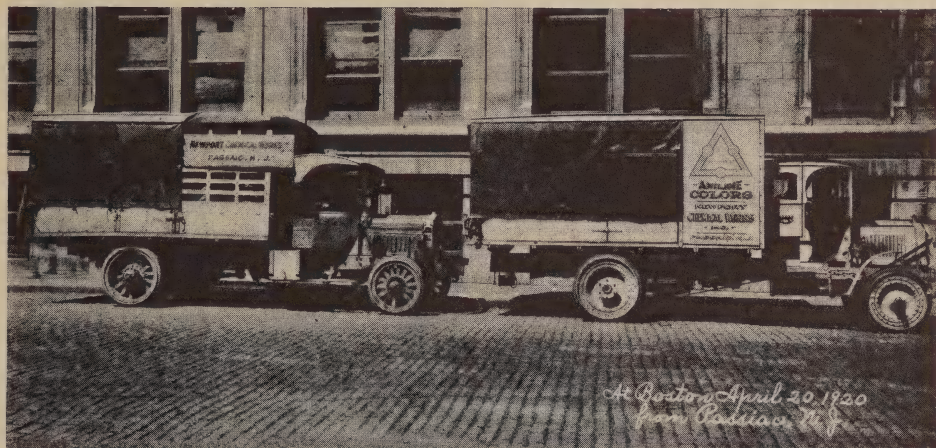
At the St. Louis meeting of the American Chemical Society, Dr. A. Brooking Davis, chemical director of the Ault & Wiborg Company, Cincinnati, Ohio, was elected chairman of the Dye Division of the society.

## "NEWPORT ALL THE WAY" SLOGAN MEANT JUST THAT DURING R. R. STRIKE

When the striking railroad employees tried to tie a large part of the industries of this country into a hard knot last

lar supply of dyestuffs, might have been forced to shut down. The conditions recalled the early days of the British embargo on German dye supplies, and its attendant suffering.

Realizing this, and not to be baffled



Passaic to Boston—"Newport All the Way"—Trucks Defy Railroad Strikers

month in order to settle their private trouble with their employers, they achieved a temporary success which will long be remembered by all whose business depends upon transportation by freight, and in common with many other large manufacturers, the officials of the Newport Chemical Works, Inc., found their deliveries of colors seriously interfered with.

Particularly urgent were the needs of several customers in Boston, who, had they been unable to secure their regu-

lar supply of dyestuffs, might have been forced to shut down. The conditions recalled the early days of the British embargo on German dye supplies, and its attendant suffering. Realizing this, and not to be baffled



operations to continue without interruption. It was a "striking" demonstration of Newport service and initiative, and an illustration of the peculiar advantages, in time of stress, of an organization which not only owns and controls every step in production from the coal beneath the ground to the finished product, but which on short notice can muster the facilities to get the product there after it is made. In this emergency, the well-known slogan of the company meant not only "Coal to Dyestuff," but "Factory to Consumer—Newport All the Way!"

### UNION DYEING

BY G. E. TEMPLETON

Unions may be dyed either by the one bath method or by dyeing the wool in one bath and the cotton in a separate bath, or by dyeing the cotton and then the wool. We will in this article give a resume of the one bath method.

The bath should be kept as concentrated as possible, or equivalent liquor to equal, approximately, twenty-five times the weight of the material to be colored. Common or Glauber Salt crystals or Desiccated Glauber Salt may be used, the latter being about twice the strength of ordinary Glauber Salt. With the use of Glauber Salt 2 to 4 lb. to every 10 gallons of liquor being sufficient, depending upon the depth of shade to be dyed. Glauber Salt tends to produce slightly brighter shades than common salt.

For deep shades the bath may be brought to a boil, the steam shut off and the goods entered and run with the steam off for from 10 to 30 minutes and again brought to a boil and boiled for 15 to 30 minutes. At this stage the goods should be sampled (by cutting a small swatch from near the end) and the sample dried. If the general trend of the cotton and wool appear to be about equal in depth but both too pale in shade, sufficient dyestuff should be added to the liquor and the bath again brought to a boil, and boiled for 15 to 20 minutes. If, however, the wool is up to shade and the cotton not deep enough, the material should be allowed to run with the steam off, allowing the cotton to "feed" in the cooling bath. If the cotton, after running in this way for from 15 minutes to one-half hour has not deepened sufficiently, a requisite amount of dyestuff that has a greater affinity for cotton than wool may be added to the cooling dye bath.

Assuming, however, that the cotton is deep enough, perhaps darker than necessary, the bath may be boiled a little longer, allowing the wool to "take up" more coloring matter or adding such wool dyes that may be judged necessary that will dye wool in a neutral bath.

For the light shades a different method may be used, i. e.: By running the material in the bath until thoroughly "wet down" at a temperature of 50 or 10 deg. Fahr. with 5 to 10 per cent of Glauber Salt, and the required amount

of dyestuff may already be in the bath or now added slowly in the front partition of the kettle and the bath gradually brought to a boil. It may be necessary to only bring to a boil and immediately cool down or, as in dyeing by this method, the cotton may pick up more of the dye than it should, a continued boil of from 10 to 25 minutes may be required. This, however, can be judged to better advantage after dyeing the first lot or a previous idea gained by dyeing a 5-gram sample in the laboratory, and the results of this test should be a fairly accurate guide.

As is only natural in the dyeing of light or pale shades the baths are nearly completely exhausted, and hardly worth saving, so that the goods may be thoroughly rinsed and a fresh bath made for subsequent lots.

With deeper shades, however, a considerable portion of the dyestuff remains in the bath and may be used again and again, and sufficient dye liquor added as may be required, which amount may be accurately judged by the average dyer. Roughly, two-thirds the amount of the dyestuff and one-fifth the amount of Glauber Salt will be found to be sufficient.

Separate kettles should be kept for light and dark shades, or, if light shades are to be dyed after dark shades, the kettle or vats should be thoroughly boiled out, which will eliminate many "off shades."

## FOREIGN TRADE OPPORTUNITIES

Names and addresses of any of the firms mentioned below may be obtained by direct application to the U. S. Bureau of Foreign and Domestic Commerce, which compiled the list, or any of its district and co-operative offices. The bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers. Applications for particulars should refer to opportunity numbers; and in case information is desired regarding more than one, inquiry should be made on separate sheets.

—o—

32430.—A commercial agent in England desires to secure an agency for the sale of woolens, cotton goods, silk, and other textiles. Quotations should be given c. i. f. Liverpool or Preston. References.

—o—

32426.—A firm of importers in Syria desires to make connections with manufacturers and exporters of woolen goods, cotton goods, shirtings, printed cotton flannels, leather for shoemaking, chemical and pharmaceutical products, caustic soda, sugar, coffee, etc.

—o—

32481.—A firm of commercial representatives in the Dominican Republic desires to secure agencies from manufacturers for the sale of textiles, hardware, foodstuffs, canned goods, ready-made suits, shoes, soap, machinery, agricultural implements, and chemical

products. Correspondence may be in English. Reference.

—o—

32487.—A firm in the Dominican Republic desires to act as manufacturers' agents for the sale of textile goods, cotton goods, provisions, dry goods, boots and shoes, perfumery, medicines, wheat flour, furniture, chemical products, etc. Correspondence should be in Spanish. References.

—o—

32447.—An importing firm in India desires to be placed in direct communication with manufacturers of hardware, engineer's tools, iron and steel products, such as mild steel plates, bars, angles, rivets, bolts, nuts, annealed wire, and barbed wire; industrial, agricultural, and textile machinery; ginning, weaving and spinning parts of machinery; electrical goods, provisions, perfumery, motors and dynamos, stationery and sundries, and colors and chemicals. References.

—o—

32450.—A firm of commission agents

in India desires to purchase and secure an agency for the sale of piece goods, chiefly both cotton and woolen; caustic soda, heavy chemicals for agricultural purposes, tinned foodstuffs, soaps and candles. Quotations should be given c. i. f. port of India. Payment, cash against documents. Reference.

—o—

32451.—A merchant in England desires to purchase the best quality of men's and women's silk hosiery. Quotations should be given f. o. b. New York or c. i. f. English port. Payment, 7 days after receipt of goods. Reference.

—o—

32437.—Several importing firms in Syria desire to be placed in communication with manufacturers and exporters of cotton and woollen goods, thread, yarn, silk goods, arsenic-dried buffalo hides, leather and skins, hosiery, pharmaceutical products, aniline dyes and colors, hardware, sewing machines, matches, tin and pewter, copper sheets, T and other construction iron, zinc, lead, bichromate of potash, dental supplies, rubber goods, cigarette paper, wrapping paper, Oriental cloth, and novelties.

—o—

32473.—A firm of engineers and contractors in Siberia desires to get in touch with manufacturers and exporters, in order to secure agencies in Russia and Siberia for steel, mining equipment, pumps, piping, saws, files, nuts, bolts, rivets, wire and wire rope, pneumatic drilling equipment, tin plate, electrical machinery, steam engines, metal working and woodworking machinery, tools, metals, rubber goods for industrial purposes, and paints and dyes. Correspondence may be in English. References.

—o—

32476.—Firms of general importers and exporters in Syria wish to enter into relations with firms for the purchase of cotton and woollen goods, white, black, and colored thread, haberdashery, leather, shoes, shoemakers' supplies, rubber goods, chemicals, dyes,



pharmaceutical products, paper, stationery, automobiles, metals, wire nails, glassware, hardware, tools, machinery, traveling outfits, sugar, coffee, confectionery, perfumes, matches, canned goods, etc.

## Dye-a-Grams

And Congress forgets that to-day will be yesterday to-morrow—and for some there will be no to-morrow.

Everybody's wearing overalls; remember our prediction about the Hydron Blues?

"Peace Hath Her Victories No Less Renowned than War"—and her trials and tribulations and dye bills too.

The Dye bill will look like a bachelor's trousers after Congress gets done a "mending" it.

Too bad the Dye bill didn't have a maturity date—but we're inclined to think it will have, for some.

Canada imported from the U. S. in 1918 one and one-half million dollars in dyes. What was your share?

A Bolshevik—"The world's wrong and I'm right."

An Irishman will tell you that Yellow is all right when mixed with Blue.

A Scotch dyer remarked after several futile attempts to match a shade, "Ah! but it's a grand color, Mon, a grand color!"

The possibilities of the Pacific are enormous when one stops to consider the number of hues the Atlantic has.

Judging by Organization, we would say that J. B. and Henry Ford were related.

If it wasn't for the consideration

the advertiser gets, editing this column would be a cinch!

The Spring color card may be all they say it is, but their delivery is something like Willard's.

H. C. of L.—It's cheaper to live than to Dye. G. E. T.

## TWELVE THINGS THE DYE MAKER SHOULD REMEMBER

By A. CONSUMER

The Value of Consumers' Time.  
The Pleasure of Promptness.  
The Worth of Dyestuffs.  
The Influence you can use.  
The Wisdom of Present Economy.  
The Improvement of Types.  
The Ultimate Success of Perseverance.

The Dignity of Simplicity.  
The Power which follows Kindness.  
The Obligation of your Duty.  
The Virtue of Real Patience.  
And, last but not least,  
The Joy of Originating.

## NOTES OF THE TRADE

Announcement has been made by the Lynchburg Hosiery Mill Company, Lynchburg, Va., that the capital of this concern will be increased from \$50,000 to \$100,000.

Under the laws of New York the Chemical Operating Company has been incorporated with a capital of \$35,000 to deal in drugs and chemicals. Headquarters of the firm will be located in Manhattan, and the incorporators consist of R. Linderbaum, F. Devries and H. H. Feldstein.

Announcement has been made by the British-American Chemical Company of the declaration of the usual quarterly dividend of  $2\frac{1}{2}$  per cent on the common stock and 2 per cent on the preferred stock of the company, both payable on June 1 to stockholders of record May 10.

Announcement has been made by Leon A. Monnier, manufacturer, importer and exporter of chemicals, colors and tanning extracts, New York City, that offices of this concern have been moved from 80 Maiden Lane to 52 Wall Street.

A. R. Fortune, treasurer of the Walker County Hosiery Mills, Lafayette, Ga., until recently in charge of road sales for this organization, has

been placed in charge of the hosiery department of the Liberty Textile Corporation, 16 Thomas Street, New York City. The latter concern will handle the products of the Walker County Mills, in which Mr. Fortune retains his interests.

The Magnolia Cotton Mills Corporation, Magnolia, Miss., according to a recent announcement, will increase the capital stock of the company from \$30,000 to \$80,000.

With a capital of \$125,000 the Madison Hosiery Mills have been incorporated under the laws of North Carolina. The mills will be located at Madison, that State. James W. Vaughan, president of the new company, states that machinery will be installed for the production of 250 dozen pairs of hosiery a day.

According to the latest cable advices received by the Textile Alliance, Inc., the strike at Rotterdam is at last over, and the *Noordam*, with the long-delayed 543 packages of colors consigned to the Alliance, sailed May 4 for this country.

Announcement has been made by Cooper & Cooper, Inc., dealers in chemicals, colors, oils and waxes, of New York City, the offices of this firm have been removed to 23 Cliff Street, that city.

Plans are going forward among the officers of the Rollin Chemical Corporation, Charleston, W. Va., for the speedy rebuilding of the company's monochlor plant, which was recently destroyed by fire with losses aggregating in the neighborhood of \$150,000.

William S. Neuhooff, who has been connected with the dye business for more than seventeen years, having been connected with the Bayer Company and later with Grasselli, assumed charge of the dyestuff and intermediate department of Charles F. Garrigues & Co. on May 1, according to a recent announcement of the latter concern.



# AMERICAN DYESTUFF REPORTER

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### A Brand New Reason for Passing That Bill

An Editorial

### Leather Dyeing

By Dr. E. O. Rasser





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## SENATOR NUGENT WINDS IT UP

Refutation of Thomas Arguments Found  
In Concluding Speech of Dye Debate—  
Was Originally Prejudiced Against Measure

**F**OLLOWING the temporary shelving of the dye bill as a result of the filibuster inaugurated by its opponents in the Senate, who apparently saw no other way of gaining their ends, the REPORTER two weeks ago presented a resume of Senator Frelinghuysen's competent, graphic picture of the needs of the dye industry and of the country, which opened the disastrous debate. Last week, significant portions were culled from the eight-hour attack on the bill by Senator Thomas, leader of the opposing forces.

In this issue our readers are offered an opportunity to make the acquaintance of Senator John F. Nugent, of Idaho, whose testimony in favor of the bill was given on Saturday, May 8, the concluding day of the battle which ended in the laying aside of the proposed measure. His speech, the last one of the discussion, followed Senator Thomas' successful effort to talk the bill into a state of coma and, both in point of terseness and sentiment, proved somewhat refreshing after the lengthy flow of commingled pity for

Germany and attacks upon the patriotism of American dye manufacturers which had endured throughout the preceding week.

Senator Nugent enjoys the distinction of being the first to get, as one might say, a word in edgewise after Senator Thomas' verbal Marathon. He and the New Jersey Senator were the only two who found a chance to present their arguments for the bill in anything like complete form, and both rose to the occasion in an entirely adequate manner. As a member of the Finance Committee charged with investigating the bill when it was first brought to the Senate last fall, Senator Nugent had ample opportunity to hear both sides of the question, and his handling of the subject was both competent and convincing.

Careful note should be taken of the fact that he stated clearly that he was prejudiced against the wisdom of the bill when it first came before the Finance Committee but tried to listen to the arguments, pro and con, with an open mind, with the result that his vote

was cast for a favorable recommendation at the end of the hearings. He declared that he held no brief for the dye industry, but that he viewed the question from the standpoint of an American citizen.

The speaker was less concerned with conflicting reports about Germany's reserve stocks of dyestuffs than he was with that nation's ability to resume the manufacture of dyes on the old scale and with the same ulterior motives. And in a most telling fashion he bluntly stated his conviction that a number of textile manufacturers in this country are conspiring with German dye manufacturers, as they did in 1882 and 1883, and in the years that have since intervened, to crush the American dye industry—in the present instance by working to bring about the defeat of the dye bill. The testimony relating to their previous activities along those lines, he declared, has not been disputed.

What follows does not purport to be in any way a summarization of the Nugent speech. For the convenience of those interested who lack the time to go farther into the matter the REPORTER has selected just 220 lines from various parts of this able document refuting many of Senator Thomas' leading arguments. All who decidedly favor or oppose the passage of the dye bill will want to read these extracts. For others who have no opinions either way it is a duty. The selected portions follow:

"Mr. President, in my opinion the pending measure, which is commonly known as the dyestuffs bill, is one of the most important that has been considered by the Senate since I became one of its members. I believe that the health of our people, the prosperity of our country, the very safety of the Republic are inseparably connected with it. . . .

"I am candid enough to say that I entered upon those hearings prejudiced against the Longworth bill. As a Democrat, I was opposed to its high-protective tariff provisions and did not view

its licensing features with very much favor.

"It is true that I was entirely unfamiliar with the facts connected with the dyestuffs industry, and it was for that reason that I endeavored to retain an open mind in the matter. As the witnesses were examined and the facts were disclosed my prejudice was dissipated, and I concurred with the other members of the subcommittee in the unanimous report to the full Finance Committee recommending the passage of this bill, and the Finance Committee, with the exception of one member, ordered the favorable report of the measure now pending. . . .

"The undisputed testimony of witnesses who were heard by the subcommittee demonstrates beyond peradventure of a doubt that the industry was killed in the United States because of a coalition entered into between certain of the textile manufacturers and the German dye manufacturers, acting through their agents in the United States, who were the dye importers. Those gentlemen did all they could to prevent the imposition of a sufficient tariff on dyes to protect the American industry, and about 1883 five American establishments were obliged to suspend operations. . . .

"I gather that one of the principal premises on which the arguments in opposition to the bill are based—and I gather this impression not only from speeches that have been delivered in the Senate but from resolutions adopted by different commercial bodies and from newspaper statements—that there is a fear in the minds of a great many well-meaning men that if the pending bill becomes a law it will mean that the people of the United States will be unconscionably robbed because of the tremendous increase that there will be in the price of dyestuffs. . . .

"In order to illustrate the matter of the cost of these dyestuffs, I will say that one gentleman, who has been for many years the owner of a dyeing plant, testified before the subcommittee. On the particular day on which he testified I was wearing the coat and vest which



I am now wearing. All of you, I presume, understand that it requires about  $3\frac{1}{2}$  or  $3\frac{3}{4}$  yards of woolen cloth to make a suit of clothes for a man. This witness testified that the cost of the dye necessary to dye the  $3\frac{3}{4}$  yards of woolen cloth that went into this suit of clothes is 32 cents. He also testified that the cost of the black dye necessary to dye a dozen pairs of cotton hose is  $1\frac{3}{4}$  cents. So it will be very readily perceived that the cost of the dyestuff is ridiculously low; and I contend that, so far as the masses of the American people are concerned, it will not make a particle of difference to them if this bill becomes a law, as the cost of the textiles which they consume would not be increased because of the price paid for the dye entering into them. That cuts absolutely no figure at all. . . .

"You will realize the significant fact that the dyestuffs sold in 1918 were sold at a price about 20 cents a pound lower, on the average, than in 1917; and I have been advised that the dyestuffs sold in this country during 1919 were sold at an average price of about 85 cents a pound, which is a still further decrease. John P. Wood, of Philadelphia, one of the witnesses appearing before the subcommittee, and from whose testimony the distinguished Senator from Colorado [Mr. Thomas] quoted quite extensively, testified that there were certain dyes that are selling in the United States for a less price than they were sold before the war. . . .

"Mr. President, there is now about \$200,000,000 invested in the dyestuff manufacturing business in America; and I desire particularly to impress this fact upon the minds of Senators: The consumption of dyestuffs in this country is approximately 30,000 tons per annum, and the importation of that quantity of dyestuffs from any nation or all other nations will, to all intents and purposes, destroy the industry here.

"I contend, with all the vigor of which I am capable, that it is vitally necessary to the well-being and prosperity of our country that there be an uninterrupted and adequate supply of

dyestuffs for use in the manufacture of textiles, etc., and that if that supply is at any time or for any reason cut off, not only will the textile manufacturer face ruin but the cotton grower and the wool grower will likewise be disastrously affected, except in the event the people consent to wear white clothing only. . . .

"Mr. President, there can be no question in respect to the matter of which I am about to speak. The record clearly discloses that, so far as the dyestuff manufacturing establishments of Germany are concerned, they are absolutely intact; they were not injured in any way, shape or form during the war; and they are even now in a condition to commence production in quantity lots. Bear in mind, furthermore, and at all times, that Germany furnished 90 per cent, approximately, of all the dyestuffs consumed in the world at the outbreak of the war. . . .

"According to the hearings, a chemist in Germany is considered a very

highly important personage; according to the testimony of witnesses as disclosed by the record, there were about 30,000 chemists in Germany at the outbreak of the war; and the services of those men were considered so vitally necessary and of such an essential character by the German Government that they were withheld from all service in the trenches, and, as a matter of fact, remained in the rear, and during the war were engaged in experimental and research work to advance the interests of the empire. . . .

"Let me say, by way of digression, that the Senator from Colorado [Mr. Thomas] during his discussion of this bill evidently took the same position I took when I entered upon the hearings in this matter. The Senator from Colorado, if I remember correctly, made a statement to the effect that it was not necessary to build up the dyestuffs industry for the purpose of training chemists; that the work could be done by the Government at a far lesser expense.

"I entertained the same view, and I sought to weaken the statements made by the witnesses before the subcommittee and endeavored to demonstrate what I at that time believed to be a fact, that a separate department, if necessary, could be established at the Military Academy and the Naval Academy for the purpose of educating chemists. The witnesses, of course, agreed that it was possible to do that. Dr. Bogert, a chemist of international reputation, stated, however, that it required six years to graduate a chemist after a boy left the high school, and all of said witnesses testified, in substance and effect, that it was not the education of the chemist that counted for so much as it was the continued research and experimental work after graduation. As a matter of course, when the facts were presented it at once became plain to me that the mere education of a chemist could not accomplish the result desired; that in order that he keep up with the times, keep abreast of conditions, it was imperatively necessary that he be engaged in some industry which

would enable him to prosecute research work. . . .

"The record discloses, Mr. President, as I have heretofore stated, that the German dye-making establishments are in perfect order; that they are in a position almost immediately to proceed with quantity production. At the time the hearings were held the statement was made—and was not contradicted—that even then Germany was shipping dyes to Brazil and to Spain, and I was advised recently—whether correctly or incorrectly, I do not know, and I have failed to secure official verification of the rumor—that an investigation of the licenses issued by the Rhineland Commission showed that during the past several months Germany has exported about 10,000 tons of dyestuffs. . . .

"Incidentally, let me say that I was advised a day or two ago—whether correctly or incorrectly I have no means of knowing—that a statement was recently published in a Berlin paper to the effect that at that time there were twenty-four thousand and some hundred workmen employed in the Badische plant and 850 chemists.

"Mr. President, it is contended that there is absolutely no necessity for the enactment of this legislation, because of the alleged fact Germany is in no position to supply dyes in any very considerable quantities to this or any other country. It is asserted very vigorously, and I agree with the contention, that there are not, as a matter of fact, any large quantities of dyestuffs stored in Germany. Such dyes as will be exported will be manufactured after this time, in all human probability, as I am quite inclined to believe that the quantity manufactured heretofore has been, comparatively speaking, small.

"Those of us who favor this legislation are not doing so in the belief that our dyestuffs industry will be destroyed this month unless this bill is enacted; we are not doing so in the belief that it will be destroyed next month, or in six months. But if the other Senators who are supporting the bill view the matter from the standpoint from which I do, they are sup-

porting it because they believe it is a matter of prime necessity that this industry shall be firmly established in the United States, and that the only way in which that can be done is to prevent, for a specified time, the importation of dyestuffs into the United States in the event similar articles or satisfactory substitutes therefor are being manufactured here. . . .

"That Germany will be in a position in the comparatively near future to produce a sufficient quantity of dyestuffs to enable her to again take her place as the monopolizer of the world in that very necessary article is, in my judgment, beyond question; she is in that position. . . ."

[In response to an inquiry by Senator Norris as to whether, if the bill were passed, it would not be necessary to likewise protect American textile manufacturers from the dumping of English or other goods dyed with German Reparations colors.]—

Senator Nugent: "I do not think so.

In the first place, under the law of 1916, if I remember correctly, a duty is imposed on certain textiles. Cotton and wool are on the free list, but there is a duty on very many of the manufactures of cotton and of wool.

"In the next place, the pending bill only prohibits importation into this country of dyestuffs when the same article or a satisfactory substitute therefor is manufactured in America, so that if the article, the particular dye or dyes desired by the consumer, or a satisfactory substitute therefor, is not manufactured in this country he is at liberty to import such quantity as will satisfy his needs for a period of six months. In addition to that, even though the dyes that he desires or satisfactory substitutes for them are manufactured here, if they are unobtainable by him on reasonable terms as to price, quality and delivery he is entitled to import."

Senator Norris: "That last provision  
(Continued on page 11.)



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LAURANCE T. CLARK, Editor

**A BRAND NEW REASON FOR PASSING THAT BILL**

Interesting indeed is Senator Moses' latest addition to the flock of schemes for getting along without the dye bill, but still more interesting as a subject for contemplation this week is recent correspondence from Spain published by *Drug & Chemical Markets*. There will be all summer to play around in these columns with the Moses and other plans, whereas the information that Germany is about to undertake the operation of certain Spanish dye plants should receive the very widest possible publicity at once.

According to the report referred to, then, German manufacturers of dyes are negotiating for Spanish dye plants in Catalonia. It is their intention, the belief is, to equip these plants with German machinery for color making, and to secure the inside track to the Spanish dye markets, incidentally exporting to Italy, Portugal and South America. The dispatch adds that the Spanish tariff on dyes is very high and neither England nor the United States could compete with German plants located in Spain.

The report calls attention to another advantage to the Germans through this arrangement as follows: "According to the Treaty of Versailles, Germany is compelled to deliver to the Allies one-half of its dye and chemical output. The one-half remaining is barely sufficient to supply the domestic demands of Germany and will leave hardly any surplus for export. The Allies would get nothing of the production of the Germans in Spain, and foreign custom-

ers of the German manufacturers will be supplied from their newly acquired plants in Spain, thus circumventing the Peace Treaty."

This information is by far and away the most important and significant with respect to the dye industry and pending dye legislation that has found its way to these shores in some weeks, not excepting the termination of the Rotterdam strike, and it is the earnest hope of this publication that it will be recognized as such and, if verified, be made use of to the fullest extent by those engaged in defending the industry from foreign aggression.

In declaring that it provides ammunition it is most decidedly not our intention to imply that it is fitting material for those who argue with phrases instead of facts and attempt to score points against their opponents by means of technicalities of the English language. It does not belong in that category at all, and to employ it thus were to rob it of its real value in quite the same manner as many of the excellent arguments in support of the dye bill have so frequently been presented with such poor judgment that they have become hackneyed and all but meaningless.

The news of the Germans' Hispanic activities goes to show, for one thing, that it is impossible to be too careful. And it again proves that German cunning, which so many opponents of the dye measure would minimize down to the ultimate minim, is quite up to par and functioning normally.

It would be difficult to call together three more astute individuals in their own particular line than Woodrow Wilson, Lloyd-George and Clemenceau. For one thing, their combined sources of inside information on world conditions are, by virtue of their respective positions, probably more extensive and accurate than those of any other group which could be assembled. And at the Versailles confabulation, be it remembered, the dye industry received anything but a cursory consideration. All realized the importance of it.

Presumably, then, the framers of the

Peace Treaty believed that they had effectually closed every possible loophole against Germany's future interference with the development of coal-tar chemical industries in their several countries. But they have all too evidently overlooked a bet, and now the only possible way to "play it safe" is the adoption of protective legislation of the kind specified in the present unamended dye bill.

It is not so much a question of thwarting Germany as it is of protecting ourselves. Measures aimed solely at the Fallen Empire will not do. On this particular question, as well as several others where the need is better recognized by our Solons, it is distinctly up to the United States to look out for itself first. Then, if we care to, we shall be in a far better position to be charitable to unfortunate debtor countries.

It is more blessed to give than to receive—and a heap more satisfying.

#### SEN. NUGENT WINDS IT UP (Continued from page 9.)

would probably fix it all right, but who would determine what would be reasonable terms and a reasonable price?"

Senator Nugent: "The Tariff Commission will administer the law, I know that some Senators take the position that that is an unsatisfactory arrangement. I am aware of the fact that some dye consumers contend that it is entirely unsatisfactory; that no man or body of men should be permitted to de-

termine whether an article which they desire is manufactured in this country or whether a satisfactory substitute for that article is manufactured in this country. But I submit that we must trust someone. Every law must be administered by some man or some body of men. It may be the Attorney-General, or the Interstate Commerce Commission, or the Tariff Commission, or the Federal Trade Commission. Furthermore, I desire to say that no monopoly, in my opinion, can be created in this country in the manufacture of dyestuffs under the provisions of the pending bill unless the members of the Tariff Commission, who are to administer the law, permit it to be organized or created, and I am firmly convinced that the members of the commission will not do that. . . .

"We must judge the future by the past, and the undisputed testimony in this matter shows beyond question that certain of the textile manufacturers of the United States did, as a matter of fact, enter into a conspiracy with German dye manufacturers in 1882 to destroy the dyestuffs industry in this country. They succeeded in their efforts in that direction, and they have seen to it that it has since remained dead.

"To-day there are certain of these dye consumers who are pursuing precisely the same policy that was pursued in 1882 and 1883, and in the years that have since intervened. They are doing all that lies in their power, through the

adoption of resolutions and otherwise, to induce members of Congress to vote against this bill. In other words, I am entirely convinced that certain of those gentlemen believe that it is vital to their interests to kill this industry in order that they may be enabled, without restraint of law, to purchase their dyes at a lesser price than they are obliged to pay to American manufacturers."

## FOUNDATIONS FOR OUR INFANT INDUSTRY

BY DR. THOMAS H. NORTON

The results of the world-wide war for Liberty will be chronicled in history chiefly in connection with the emancipation of numerous nationalities from political serfdom, and possibly of humanity, as a whole, from the shackles of militarism.

In the economic annals of this country, however, great emphasis will also be laid upon the liberation of American industry and of our consuming public in general from dependence upon foreign sources—chiefly German—for a large variety of manufactured wares practically indispensable in a highly organized civilization.

### OUR TECHNICAL PROBLEMS IN 1915

Early in 1915 we were cut off from commercial relations with Germany. In quick succession the demands came from one industrial branch after another for various products, the lack of which threatened to entirely dislocate normal activities.

American inventive genius was promptly spurred to the utmost, first, to devise emergency substitutes, next to create domestic sources of the most diversified articles. For the past four years there has been a marvelous effort on the part of our men of administrative ability, and of our men of scientific training, combined in a determination to win a decisive victory in the domain of technology, fully as stern and unyielding as that

which actuated our warriors on the battlefield.

And they have won it! A complete command of the home market, favoring legislation, the patriotic support of consumers—these three factors contributed to bring about the desired result. In practically all fields American manufacturers are producing wares equal in quality to those formerly imported from Europe, and destined at an early date, likewise, to equal them in quantity and variety.

### CAMPAIGN FOR A NATIONAL COAL-TAR CHEMICAL INDUSTRY

No effort in this widely diversified province has excited so much public interest as the bold campaign to create a self-contained, national coal-tar chemical industry. Technically and commercially it means the establishment on our soil of the most complicated and highly organized industry thus far known, based upon the use exclusively of American raw materials. It means, further, the emancipation from dependence upon German products of domestic branches of manufacture employing many million operatives. The category includes the producers of textiles, paper, leather, furs, feathers, ink, paints, varnishes, pharmaceuticals, foods, perfumes, photographic materials and numerous allied branches, as well as the many trades furnishing them with raw material or utilizing their wares. As a matter of fact, every American household and nearly every form of industrial activity make daily use of the colors, flavors, perfumes and synthetic remedies derived from coal tar. A constant, uninterrupted supply of these varied articles is essential to the comfort, health and happiness of every American. The campaign undertaken is, therefore, of prime interest to each one of our fellow citizens. In this campaign the dominant factor is the creation of a comprehensive, self-contained, synthetic color industry.



## CREATION OF A SYNTHETIC COLOR INDUSTRY

Prior to the war there were in this country a half-dozen firms engaged in the production of artificial colors. The primary materials, so-called "coal-tar intermediates," were nearly all of German origin. Operatives and salaried staff numbered less than six hundred. An output of about 3,000 tons formed one-tenth of the total American consumption of coal-tar colors.

Since 1914 the plants of the few firms in question have been greatly enlarged and several score new companies have undertaken the production of coal-tar intermediates and artificial dyes. Most of the latter have attempted the manufacture of a limited number of colors, aiming rather at quantity than at variety. In one way or another most of the urgent needs for colors in our diversified industries have been met. To-day there is no material shortage of dyes, in a collective sense, in the United States, but on the contrary a notable export trade has come into existence, the value of which, at the current elevated prices, exceeds the sum expended annually abroad by us for these wares prior to 1915. This statement is to be taken in a quantitative sense. We are still far from producing all of the many hundred colors regularly imported from Germany five years ago, often in small amounts, but of very pronounced value in specific cases. Such colors are constantly being added to the lists of our

American houses. Five years hence, probably only a very few dyes, for which there is a normal, even if restricted, demand in our country, will be imported from foreign sources.

As stated above, most of the factors in our new dyestuff industry have concentrated their efforts along the lines of least resistance. They have rapidly created the requisite plant and organization for the production on a large scale of small groups of staple dyes, involving a minimum of operations, and the use of the more common intermediates, and meeting the more general and pressing demands of the textile and allied trades.

In but a very few instances, notably in the case of the Du Pont Company, has the effort been made to lay the broad foundations for a type of comprehensive color works, comparable to those located on and near the Rhine, an American replica of the "Badische" or "Bayer."

These giant German establishments, gradually evolved during the past sixty years, possess highly specialized staffs in the engineering, chemical and sales departments. They manufacture on a vast scale the acids and inorganic or organic chemicals required in their operations, as well as the coal-tar intermediates. They are ready to add the production of therapeutic or similar compounds, closely allied to synthetic colors. A notable source of their commercial power is based upon a huge capital, not simply of money and credit, but more particularly of experience in each phase of activity connected with the prepara-

tion and application of every form of dye, and its sale in the markets of the entire world. Each, likewise, aims to meet adequately *all* the demands of any branch of the textile, paper, leather, straw, wood, ink, pigment and similar industries, as far as shade and fastness of colors are concerned, so that its customers do not need to seek supplies elsewhere.

Any attempt here in America to create a rival organization paralleling the powerful companies along the German western frontier may well be termed bold, and possibly is deemed foolhardy at Frankfurt or Ludwigshafen.

That it is not impossible we see by the evolution of the Swiss color industry. In a country destitute of fuel and all requisites for chemical manufacture, except ice and salt, the four color works at Basle have developed steadily and harmoniously. In 1914 Switzerland's output of artificial dyes, per capita for the Swiss population, was double the per capita production of the German Empire.

#### PROBLEMS OF AN AMERICAN COLOR COMPANY

In the United States we have all the raw materials and the largest market in the world, supplemented by American enterprise, technical ingenuity and the habit of doing things on a big scale. And yet it is a vast undertaking to create an individual organism capable of manifesting within a few years the same complex, many-sided efficiency as the rivals across the ocean.

In any one of the world's great color-works, each feature is exhaustively studied in its possible relations to all other processes for future development. Purity and a good yield are constantly kept in view, but in addition there is a high degree of co-ordination with a variety of other factors of production. Every pound of by-product must be utilized; the normal market for certain staple specialties must not be seriously affected; the results of experience and observation in some one subdivision

must be considered in their bearings on many closely or remotely related operations; especially must every advance made in the field of pure chemistry or in the manufacture of intermediates and of dyestuffs be submitted promptly to a searching examination as possibly affecting some one or more subordinate features in a vast organism.

It is by unceasing and watchful attention to all this mass of minor detail that the great German works have won their dominating position in the domain of tinctorial chemistry and maintained it until recently. It is only by duplicating this never-resting, many-sided mental activity that rivals on this side of the Atlantic can hope to attain an equally successful and possibly a more permanent position in what promises to be one of the most bitterly contested struggles ever waged for technical and commercial supremacy.

It is most fascinating to anyone who has had the entree of a leading German color factory to note the space and care devoted to the preservation in an easily accessible and carefully classified form of the complete record of human activity in the field of artificial dyestuffs. The great staff of chemists carry in their notebooks and in their memories numberless details of operations, the results of experiment or gleaned from the study of the literature on the subject. But, in addition, there is the *permanent memory*, the systematically arranged and carefully co-ordinated collation of the complete data on every branch of dyestuff manufacture. Impressive are the voluminous files of the patents of all lands relating to the production and use of dyestuffs, outlining the historical development of this field of technology and sharply defining the legal rights, for the time being, of rival companies.

These archives of the German color-works, these *artificial memories*, have slowly grown. The problem of their duplication by American rivals is far from easy.

How the Du Pont Company has solved—swiftly and successfully solved—this problem of erecting an American

counterpart of the elaborate artificial memories of the giant works on the Rhine will be described in a succeeding article.

## Dye-a-Grams

Of course, Senator Thomas is sure of his job; therefore he can afford to propose such a ridiculous amendment.

Senator Pen-rose up from a sick-bed and insisted on supporting the dye bill. Atta Boies!

Eventually there will be a lot of people who will not have the opportunity to "say it with flowers."

A few more Du Ponts and less Thomases and Moseses is what the country needs.

When a man can get what he most desires, why, naturally, he wants to see someone else get 100 per cent of the other fellow's *ante*!

Thanks, Ed., for the idea they raise wool in Colorado, and Senator Thomas is trying to pull some of it over the eyes of the few intelligent Senators we have.

It ought to be easy to be unhappy in a hearse. But companionable? Never!

Excerpt: "There are plenty of other bills going through the Senate." We'd

like to know if the editor is seeing things or just kidding us along!

What Congress needs is to be diazotized and developed — into its *plain duty*!

Advertisement: "National Colors Are National Assets." Strange! We had a sneaking idea that National's colors were National's assets!

G. E. T.

## GERMANY TO RESUME TEXTILE EXPORTS

### Fatherland Planning Shipping Finished Products As Quick Way to Obtain Foreign Credits

The conditions and prospects of Germany's textile trade are such as to indicate that preparations are under way toward a resumption of exports on a large scale, says the American Chamber of Commerce in London.

While the German Minister considers that years must elapse before Germany's textile industry will attain its pre-war status, he states that the export of finished goods will be encouraged because only by obtaining foreign currency in exchange for exports can imported materials be paid for. Germany's textile industry is said to be working to between 30 and 40 per cent of its pre-war level. About 30 per cent of the cotton trade is occupied, but the wool industry, though well supplied with raw ma-



terials, is reported to be producing 7 to 8 per cent of the peace demand.

The American Chamber understands that the strongest feature in textiles is presented by Germany's linen trade. During the war valuable support was extended by the Government to the production of native flax, so that the area under cultivation to-day is estimated at approximately 172,900 acres. For the immediate present the linen industry is only occupied to the extent of 25 per cent, and prices of finished goods are very low as compared with other countries. It is claimed, however, that Germany is in a position to produce high quality and luxury quality linen goods, specially suitable for export, while large sums of State money continue to be expended in encouraging flax production.

### CHEMICAL NEEDS OF POLAND'S TEXTILE INDUSTRY

It will be of interest to American manufacturers of chemical products to know that annually, on a normal basis, the textile industries of Poland require, in addition to the principal dyes, the following:

	Tons.
Gum tragacanth .....	100
Gum de cordofane .....	50
Bleaching powder .....	1,000
Sulphate of soda (calcined) .....	7,500
Caustic soda .....	6,000
Carbonate of soda (calcined) .....	3,500
Acetate of soda .....	200
Bichromate of potash or of soda .....	600
Ferrocyanide of potash or of soda .....	100
Chlorate of potash or of soda .....	60
Chromium acetate (dry) .....	20
Nitrate of soda .....	50
Tannin .....	50
Double salt of antimony .....	50
Chrome alum .....	250
Alum or sulphate of aluminum .....	200
Hydrosulphite (for printing) .....	10
Bisulphite of soda (dry) .....	200
Bisulphite of potash .....	500
Copper sulphate .....	60
Sulphuric acid .....	6,000
Hydrochloric acid .....	2,000
Nitric acid .....	50
Acetic acid .....	1,000

Yellow glycerin .....	40
White glycerin .....	100
Stearine .....	20
Coconut oil .....	500
Cottonseed oil .....	550
Castor oil .....	450
Oleine (for soaps and softenings) .....	3,300
Tallow .....	3,400
Cachou de gambir ou pegne .....	20
Campeche, dry, American .....	200
Haematein crystals .....	100
Persian berry .....	20
Quercitron extract .....	100
Aniline salt .....	200
Aniline oil .....	20
Paranitraniline .....	100
Beta naphthol .....	100
Alpha naphthylamine .....	30
Sodium sulphide .....	3,200
Sulphur .....	1,000

### ASSOCIATED MANUFACTURERS OF WATER PURIFYING EQUIPMENT TO MEET AT MONTREAL

Montreal, Quebec, has been chosen for the coming meeting of the Associated Manufacturers of Water Purifying Equipment, to be held in conjunction with the annual convention of the American Water Works Association, during the week of June 20. A full representation is expected and plans are under way to make this the most constructive and interesting meeting yet held.

Adequate and efficient water purification is now recognized as a vital factor in the operation of nearly all industries. There has accordingly been a rapid expansion of the manufacturers of purification equipment. The feeling that they can better serve the consumer and themselves by an exchange of ideas has prompted these manufacturers to maintain this organization of live-wire representatives.

One important aim of the association is to secure uniformity of contracts and sizes of filters. To expedite this purpose, committees on standardization of contracts and filter sizes have been at work for some time and full reports, together with tentative forms and

schedules, will be submitted at the coming meeting.

Under the able direction of the president, Arthur M. Crane, the organization is successfully following out the purposes for which it was formed. The name, "Associated Manufacturers of Water Purifying Equipment," has been registered in the United States Patent Office, and through the efforts of the membership and publicity committees a substantial increase in members has been realized during the past few months.

## LEATHER DYEING

By DR. E. O. RASSER

In what follows we endeavor to describe a new step in leather dyeing, which makes it possible to impart to leather light-fast and water-fast colors such as have long been in use for cotton goods. Hitherto leather dyeing processes have been largely ruled by the nature of the leather. Basic colors requiring preliminary treatment of the leather, sulphur dyes, mineral colors, oil-soluble coal-tar dyes, and the like, have been used.

Dyes for leather must fulfill the following three conditions: (1) Their behavior in presence of acid must be satisfactory; (2) they must be resistant to the action of light and water, and (3) they must have no deleterious effects on the substance of the leather.

Ignoring for the moment the basic colors, which require unconditionally a previous treatment of the leather, a preliminary manipulation of the surface of the material is of great use in facilitating the application of the dye; this process takes the form of a sprinkling

with zinc dust, followed by bleaching in a bath of sodium sulphite, washing, and a further application of sodium sulphite.

Chrome leather is easily, quickly and well dyed in solutions of sulphur dyes, followed by a mordanting in an acidulated solution of a basic dyestuff. This process may be further improved by adding an alkaline emulsion of fat to the sulphur dye solution, and simultaneously applying formaldehyde, tannin, etc.

## MINERAL COLORS

Mineral colors also give good results with leather, fine fiery tints being obtained with titanium salts, red with molybdenum compounds, bright yellow with tungsten, and green with vanadium. Fat-soluble coal-tar colors are specially suited to certain classes of leather goods, used in the proportion of 15 parts of dye dissolved in 1,000 parts of benzine, mixed with 15 parts of soap powder and 45 parts of spirit. The goods are either immersed in or evenly brushed with this mixture, according to convenience.

In dyeing with dyes easily soluble in alcohol, the leather is left in the dye long enough for it to acquire the desired color, and afterwards rinsed and well rubbed.

Certain colors can be better obtained with substances other than coal-tar dyes, as we are about to describe, but we may mention at the outset that the intensity of the colors depends on the strength of the solutions, and it is advisable to make a preliminary test to ascertain what strength to use for the effect desired.

Yellow can be obtained by immersing the material first in a solution of sugar of lead in water, washing with clean water, and then placing it in a solution of red chromate of potash, to which enough soda has been added to give it a yellow color. The compound thus formed is the well-known chrome-yellow.

*(To be concluded.)*

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## NOTES OF THE TRADE

The latest additions to the Atlantic Dyestuff Company's range of colors comprise, it is announced, Atlantic Yellow G, a clear sulphur yellow, and Bismarck Brown AY, a very clear, yellow shade of Bismarck Brown.

W. B. Jones, formerly director of dyes at the Newark, N. J., plant of the Butterworth-Judson Corporation, has been appointed technical director of that organization and will now be located at the New York office of the company, 61 Broadway. H. S. Jones, formerly assistant director of dyes, has been appointed director of dyes, with offices at the Newark plant.

Announcement has been made by Walter F. Sykes & Co., Inc., dealers in dyes and dyewood extracts, that the offices of this company have been moved from 176 William Street, New York City, to 8 Lispenard Street. The new quarters of this firm now occupy the entire building at the new address.

Announcement has been made by the National Yarn Mills, Belmont, N. C., that the capital of this company has been increased from \$200,000 to \$800,000.

Following a walk-out of the workers on April 26, due to a refusal to reinstate a discharged employee, operation of the Hamilton Carhartt Cotton Mills, Rock Hill, S. C., has been resumed with from 30 to 40 per cent of the workers back at their posts.

A "List of References on Dyestuffs" has just been published by the Library of Congress, compiled under the direction of Herman H. B. Meyer, chief bibliographer. The list contains not only the names of books but references to articles in periodicals on this subject. The first list of this kind, issued in 1915, contained 134 entries, while the present one contains 1,650.

Announcement has been made by Turrull & Co., merchants, importers and exporters of chemicals, naval stores, oils, colors, etc., that the headquarters of this concern have been removed from 170 Broadway, New York, to 140 Liberty Street.

A special meeting of the stockholders of the American Woolen Company has been called for May 25, to take action on the proposed increase in the authorized preferred stock from \$40,000,000 to \$60,000,000, and the sale of \$20,000,000 of common stock to increase that issue to \$40,000,000.

Under the laws of Virginia the Federal Cleaning & Dyeing Company has been incorporated with a capital stock of \$100,000. Headquarters of the new concern will be located at Alexandria, that State, and the incorporators consist of Harry L. Hoffman, Edna V. Bumpus, Alexander H. Bell, P. Hoffman and Edward B. White.

The Davis Chemical Products Company, Inc., Jersey City, N. J., has been chartered in the office of the Secretary of State to operate in the manufacture and sale of chemicals, chemical compounds, acids, dyes, oils, paints, etc. The United States Corporation Company has been named as agent for the new concern.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 22

May 31, 1920



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By H. Gardner McKerrow



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, May 31, 1920

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## "ENTIRELY AT FAULT" (?)

Senator Thomas' Interpretation of the Dye Bill—Together  
with Copious Notes on the Textile Mines of Colorado

SINCE the termination of the Senate's debate on the dye bill which ended in the shelving of the measure until it shall please Providence and politics to rescue it from its present attack of *encephalitis lethargica*—which is acquired by inoculation rather than by infection—our readers have been informed in these columns of "The Frelinghuysen Speech," which opened the ball and showed conclusively why the dye industry is entitled to immediate consideration as a thing apart from the average tariff question; they have been shown cross-sectional views of the eight-hour lullaby which produced the coma in "Senator Thomas Sees It Through," and they have observed the good use made of the opportunity finally gained—most probably because the Colorado Senator became winded—in "Senator Nugent Winds It Up."

It now remains to settle down a bit, look back over the discussion so productive of disgust, and gather in a few of the fragments. As before hinted, there ought to be plenty of time to do

this during the summer, but since mention was made of further consideration of the Thomas arguments and the Thomas expressions of sympathy for Germany's "harsh" treatment at the hands of the Allies, right now is as good a moment as any to make a beginning.

Aside from his fear that the Dye Barons of Mittel-Europa might suffer such injustices as to affect the rentals derived from their baronial estates along the Rhine, one of Senator Thomas' worries was that the enactment of legislation permitting the United States to prepare itself for the prevention of future wars by means of a self-contained dye industry would mean the immediate contention of all other industries which have to compete with foreign manufactures that they must have similar protection at once.

Referring to Senator Frelinghuysen's speech he said: "The constituent of the Senator from New Jersey interested in the protection of chemical glassware, if this bill (the dye bill) becomes a law, should insist upon its extension



to his product, and contend that wherever he can present anything just as good the foreigner should be excluded from our market.

"Mr. President, if this contention is not the logical deduction from the operation of this measure, then I am entirely at fault in my construction of it."

It would seem that there is much food for thought in this statement of the Colorado Senator, as well as in the contention to which he refers.

The REPORTER, together with a whole host of people concerned with the welfare of the dye industry, would give a great deal to know just that very thing, namely, whether or not Senator Thomas is entirely at fault in the construction which he puts upon the measure.

It does not seem conceivable that anyone can listen impartially to both sides of the case—we said *both* sides—and, viewing it from the standpoint of a citizen of the United States anxious to carry on the work begun by the signers of the Declaration of Independence, place so warped and narrow a construction upon it as to assail the patriotism of those who support it. Of course, in the case of someone not familiar with the problem, or not familiar with the nature of the dye industry, errors of the most glaring description are constantly met with and excite no wonder, and even when the individual is better informed, as is Senator Thomas, it is not beyond the limits of possibility that perfect comprehension of the situation, with all its manifold ramifications, might still be lacking, or at least incomplete. In that event, there is always hope of making up the difference and rounding out the course of instruction by a brief post-graduate term.

But what if the pupil's interpretation of the facts is at variance with the logical conclusion both before and after opportunity has been given to exercise the reasoning and inferential faculties? What if his erroneous construction persists in the face of undisputed and indisputable evidence of its fallaciousness?

The spectator is driven to regard the subject's verdict in the light of a pre-

conceived and arbitrary conclusion—a conclusion arrived at before or during the period of instruction, and tenaciously clung to through sheer willfulness because of its origin in outside conditions related but distantly to the principal premise.

If Senator Thomas' Herculean effort to waylay and overcome the dye bill by strong-arm methods proceeds from any such cause as the above—although the conclusion that it does is not here specifically suggested and cannot be specifically suggested while so much of the inner workings of Senatorial opposition remains unrevealed—there would, were that the case, be two mitigating circumstances which have not been taken into consideration by those who denounce his stand—considerations which render the obstructive tactics pursued by him more or less excusable.

One of these considerations is Senator Thomas' zeal in the prevention of too much harshness toward Germany, which, although conditions in Austria are a hundred times worse and considerably more deserving of sympathy, plays a prominent part in many of his Senatorial utterances anent the Peace Treaty and the dye industry. And since, as everyone well knows, the dye bill was in point of fact designed solely to reduce the Germans to paupers and to prevent their recovery from debts and acute Bolshevism, and for no other purpose—we don't expect you to believe that, but really it isn't so!—why, then, Senator Thomas cannot well be blamed for feeling and voicing opposition.

The other consideration is Senator Thomas' zeal in the prevention of any movement which might be likely to result in the impairment of the Colorado textile industry.

As every school-child who has studied geography is aware, and as every reader who has paid proper attention to this country's resources is aware, the textile industry of Colorado has for years been the principal means of livelihood of the natives of that State. Yet even though this knowledge is so widespread that we are almost ashamed to insult the intelli-

gence of our readers by giving further details—yes, even at the risk of repeating part of the contents of every fourth-grade public school geography—it is felt that readers should be made to realize the exact part which this vast industry plays in the discussion.

Briefly, then, the principal textile mines of Colorado originate in the Southern Ute Indian Reservation, in the extreme southwestern corner of the State, and extend diagonally northeast as far as the Park Range of the Rockies in Eagle County. Here there is a break, but some 150 miles directly east begins another lode which terminates near the Nebraska boundary in Logan County. The output of these mines consists principally of cottons and woolens, but only a few years ago exceedingly rich and hitherto unknown deposits of silk were opened up in Fremont and Custer Counties, adding enormously to the importance of the industry.

The circumstances attending the accidental discovery on February 29, 1843, of the first cotton mine by Sigmund Reilly, a Spanish explorer, though highly dramatic, are too well known to need repetition; any good history—if it be good enough—can supply the story, as well as an account of the years that followed, when the mad rush to reach this new-found Land of Riches attained its height. During this time only the most primitive machinery and the crudest methods were used, and much of the precious ore was lost beyond recovery through carelessness in handling.

In later years, however, textile mining has become a highly specialized process, the ore being first taken to the distillery, where it is washed, dried, combed, plucked, picked, carded, lixiviated, levigated and finally spun into ingots. These ingots are then dyed what color is desired by skilled operatives trained in the composing room of the Congressional Record, after which they are transported by wheelbarrow to the Pacific Coast and shipped through the Panama Canal to the mills in the

East, where the finished product is turned out.

Expert zoologists tell us, however, that the operatives engaged in this industry are so sensitive to the slightest variation in the perfect harmony in color scheme or matching that a single false hue will drive them into perfect paroxysms, during which they foam at the mouth and call piteously for United States Senators to read to them the latest news bulletins from Washington. If there are no bulletins on account of delays to bills in Congress, work is discontinued until some are forthcoming. Production has sometimes been completely halted for weeks. . . .

Little more need be said. . . . In fact, too much has been said already to give a really accurate picture of the textile industry of Colorado and its great needs. . . . It would require the pen of a Mark Twain, a Bob Burdette or a Bill Nye to do full justice to this peculiar and acute situation, and even could their services be secured

there would still be someone unkind enough to hint that this talk of textile mines is a fabrication!

The connection between this giant industry and the Senate dye debate having thus been established beyond any unreasonable doubt, and the heart-searing sufferings of the Colorado textile workers having been revealed, would it, then, be any wonder at all if Senator Thomas, seeing clearly while others fail to see the dye makers of the effete East and points West arming themselves for a concerted, insidious loathsome assault upon these textile workers—would it, then, be any wonder if he were to take alarm, spring to their defense, and make the dye question peculiarly his own?

Could he be excused, in the face of such a desperate situation, for having preconceived notions—for drawing his conclusions first and hearing arguments afterwards?

Of course he could; you know he could!

In view of the fact that the dye industry and the chemical glass industry are in no way analogous, the opinion may be hazarded that so far as the dye industry's needs are concerned, Senator Thomas' construction of the dye bill really is entirely at fault—but so far as the needs of the Colorado textile industry are concerned, he is a prophet, not to say a visionary.

## LEATHER DYEING

By DR. E. O. RASSER

(*Concluded from last week.*)

Red may be obtained in several ways. A beautiful scarlet is formed by first soaking the leather for a considerable time in water acidulated with a little nitric acid, and afterwards in a liquid obtained by treating finely powdered cochineal with ammonia. As soon as the desired color has been attained the leather is withdrawn and well rinsed in water. A unique dark red is secured in the following manner: A solution of yellow chromate of potash is first used, and followed by a solution of nitrate of silver (lunar caustic); by

this means the fine red silver chromate is formed. A fine purple-red may be secured by placing the leather in a very dilute solution of gold trichloride, and then exposing it to bright sunlight; the gold chloride is decomposed by the light to form a strong color.

Blue can also be obtained in several ways; indigo blue by treatment with a dilute aqueous solution of indigo carmine; Prussian blue by a first bath in a solution of ferrous chloride, followed by rinsing, and a bath of a solution of yellow prussiate of potash.

Green is obtained with a solution of two parts of verdigris and one part of ammonium chloride.

Violet may be produced by first dyeing the article a weak blue with indigo, and then treating with the cochineal solution.

Brown is the color produced by a solution of permanganate of potash, to which soda solution has been added, but not sufficient to produce a precipitate.

Gray.—Silver gray is produced by soaking the article in a very dilute solution of sugar of lead, and then hanging it in a chamber full of sulphuretted hydrogen; the lead sulphide which is formed gives the leather a peculiar metallic gray sheen. The lead solution must, however, be very dilute, otherwise the color will be black rather than gray.

Black.—One way of obtaining a black color is by soaking the leather in a solution of nitrate of silver and then exposing it to strong sunlight; the color is gray or black, according to the strength of the solution and has a metallic luster.

## SUBSTANTIVE DYES

These processes are all more or less known to tanners, besides others we have not mentioned. The use of substantive dyes which may be used in conjunction with diazo-compounds is, however, new, e. g., paranil colors with nitro-diazobenzol, as already used for textile dyeing. The chief point to be



attended to is the after treatment to fix the color in chrome leather. Numerous tests of these colors have shown good results. The following is a sample of the procedure: (1) the dyeing of the neutralized chrome leather with 1 per cent progranil yellow "G" at 50 deg. Cent.; (2) washing and soaking for from 15 to 20 minutes at between 10 deg. and 20 deg. Cent. in a solution of para-nitrodiazobenzol (1 kg. weight of salt to one liter of solution containing 5 g. paranililine, 15 g. hydrochloric acid, 22 deg. Be., and 3.3 g. sodium nitrite; 250 cc. or at most 300 cc. of a 10 per cent solution of acetate of soda are added just before use); (3) vigorous shaking of the dyed leather with water; and (4) greasing with an emulsion (2 per cent of soap and 0.5 per cent of neatsfoot oil.)

In the case of chamois, the leather is freed from fat by the usual washing with soda, rinsed, and treated at the ordinary temperature with a 2 per cent solution of chrome alum for at least four hours. It is then dyed with paranil brown "B" and treated as previously described with nitro-diazobenzol, and subsequently rinsed and greased when it will be found to have assumed a fast brown color.—*Handwerker Zeitung*, translated in *Dyestuffs*.

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Expectations are that the Matawan, N. J., plant of the Jordan Coal Tar Products Company, Inc., of New York, will be in full operation by July 1.

## CORRECTION REGARDING THE GRAESSER - MONSANTO CHEMICAL WORKS

In a recent issue of the REPORTER there was printed an account of the amalgamation of the British interests of Monsanto Chemical Works with the Graesser Company, of Wales. We are now advised that the account as given in the REPORTER was not entirely correct, the facts in the case being substantially as follows:

The Graesser-Monsanto Chemical Works is the correct title of the new company, which consists of the amalgamation of the British interests of Monsanto Chemical Works, St. Louis, with the old established firm of R. Graesser, Ltd., of Ruabon, North Wales. R. Graesser, Ltd., have led in the manufacture of phenol and cresols since their establishment in 1857. The new firm, with a fully paid up capital of £400,000, will immediately begin to manufacture in Ruabon the full line of chemicals now being manufactured by Monsanto Chemical Works of America.

The new company will take over the London offices of Monsanto Chemical Works, at 62 London Wall E. C., London, from which office all European sales will be handled. Mr. Robert Du Bois, former sales manager of Monsanto Chemical Works, will continue to manage the London office and a number of others from the staff of Monsanto Chemical Works are already located in the Ruabon plant.

**AMERICAN DYESTUFF REPORTER**

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**"A DROP OF INK—"**

"—Makes millions think." It is easy enough for anyone to complete the quotation begun in the above headline, but not so easy to figure out just what we should do if we arose some fine morning to find the world's supply of that indispensable commodity suddenly gone forever.

The mind reels before the picture. No newspapers, with their stock market and commodity reports; no trade journals and magazines, with further detailed information, useful to business men; no mimeographed form business letters; no printed circulars or catalogues; nothing but the indelible pencil for the signing of checks and legal documents—which in themselves would have to be typewritten, since they could not be mimeographed—business would be in a fine pickle, indeed.

What should we do for postage stamps and bank notes? How about the labeling of millions of cans of food products? So it goes. The importance of ink is great enough to make the resolution unanimously passed by the National Association of Printing Ink Manufacturers at their recent annual convention in New York City, worthy of thought:

"RESOLVED, That it is the unanimous sense of this meeting that this Association petition the United States Senate to pass immediately Coal Tar Dye H. R. 8078, as reported by the Sub-Finance Committee of the Senate."

The resolution is of little use—now.

This is not because of any lack of importance on the part of the association, but simply because the cards are stacked; the Senate refuses to consider the interests of the country ahead of party interests in the coming election. Unless President Wilson calls Congress back, next December will be the earliest that the dye bill can be considered—only about four months less than two whole years after the measure was originally introduced! This is worse than might have been expected for any bill under the most unfavorable circumstances. In plain English, it is unutterably rank! It shows what a hideous travesty incompetent representatives can make of the best form of government ever devised by man!

What makes the resolution important is the fact that steady consumers of American dyestuffs have seen fit to publicly express their confidence in American dye manufacturers, and their realization of the best interests of this country. Contrast this resolution with that of the Knit Goods Manufacturers' Association, an organization consisting also of consumers, opposing the measure. In the case of the latter, the cost of the dyes used is relatively far smaller than in the case of the printing ink makers; these ink manufacturers stand to lose more than the hosiery interests, should American dye manufacturers fulfill Senator Thomas' gloomy prediction and raise their prices. Yet they are willing to take a chance.

The recent tribute to American dyes in the printed circular of the Le Page ink people has already been gratefully referred to in these columns. The above resolution strengthens the comforting knowledge that ink manufacturers, as a whole, are banking on the American dye makers. They resent the thought that the United States might ever again be obliged to beg a foreign country for another foreign country's colors for the printing of our postage stamps and paper currency.

The ink manufacturers are taking no chance. They have adopted a wholly patriotic and unselfish attitude. They

deserve and will receive the best service that the American dye manufacturers can give.

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### CONSUMER BELIEVES THAT DYE MAKERS SHOULD PARE PRICES

The letter reprinted below, which was recently received by the REPORTER from the chief chemist of a large Canadian woolen manufacturer, expresses sentiments which are so completely in line with our own that we believe our readers may peruse it to their advantage. The latter paragraphs of the letter, in which Mr. Templeton suggests that dye manufacturers might strengthen their case with the consumers of the country by reducing prices in certain instances, are worthy of considerable thought. A majority of the consumers of the country have stood solidly behind the manufacturers in their efforts to secure protection for the industry and it is cer-

tainly reasonable that the manufacturers should evidence an appreciation of this support by making prices on needed dyestuffs as low as is consistent with reasonable profit.

It is particularly gratifying to note that Mr. Templeton feels that his firm has received service from American manufacturers equal to that which they had been accustomed to receive from German sources.

The letter in full follows:

(Letterhead of)  
BROWN WOOLEN MILLS, LTD.  
KINGSVILLE, ONT.

"Gentlemen:—

"You certainly got out the issue of May 10th in fine manner. But, for the life of me, I cannot account for the attitude of some of the dye consumers and was much surprised at the resolution regarding the dye bill, passed by the Knit Goods Manufacturers' Association, at Philadelphia. It is a fact



that to-day we here are completely sold up for at least fourteen months, all on piece dyed goods—the line comprising some fifty-two shades, all produced with American dyes and 80 per cent of them produced with National colors. We have been used most fairly by the National Company. Whenever I have had a foreign dye submitted of equal type or strength I have submitted same to the National Company's New York office and have always received either a reduction in price or a similar type at an equal price. Conditions being anywhere near equal, I have always placed our orders with either an American company or the British Dyes, Ltd. Knowingly, I will never use a German dye again. And if we could only get others to feel the same we would not then care so much what Senator Moses & Company did.

"My whole interest in the matter is to see 'American products first.' Keep our money in circulation home. Given a few years and protection, I verily believe our dye industry will be the greatest in the world.

"I, personally, am glad to see you take such a decided stand for the welfare of the industry and you deserve all the support you can get. A little more publicity by the dyemanufacturers themselves wouldn't do any harm. The National Company started off with a publicity program that was bearing results—of late I have not heard they were doing anything, but, like others, are sitting back and letting the other fellow do it. The brewery interests did this, and now see the result of inaction—or lack of concerted action. Of course, I think that National and a few others are holding up dyes, or prices, rather out of reason in some cases. For instance, a suitable blue for shading or using in combination shades is scarce, and, while both Newport and the National have them out, to my knowledge they are quoting from \$6 to \$11 per lb. Their profits last year were abnormal and a reduction should be made, especially in the dyes that are most needed.

"I think if you can point this out to

them through the REPORTER without hurting their feelings, it would be doing something consumers would appreciate. There are two sides to the story, and I know you have the gift for writing exceptionally clever and to-the-point editorials, bringing sarcasm, humor and facts in at the right place—surely a gift!

"(Signed) G. E. TEMPLETON."

## THE FINISHING OF KNITTED GOODS

The proper finishing of knitted goods undoubtedly facilitates their sale. It is, however, only about a dozen or so years ago that the best-known manufacturers were content to defend their reputation by giving most attention to the intrinsic value of their goods and practically none at all to the art of finishing. The possibilities of finishing became apparent as knitted articles came more into request for general goods expected to withstand frequent washings, and it was this turn in public demands which led to the necessity of imparting a better appearance to the goods and in reducing as much as possible the tendency of the material to shrink. These requirements were rapidly realized, and the finishing branch of the trade is now one of the most important. Knitted goods are generally finished when all the operations of manufacture have been completed, while the tubular or rectilinear fabrics made in pieces are ordinarily finished before being made up into the completed article. The latter method affords many advantages, because then measurements can be made with more certainty, and the material can be cut, sewn and made up into the required form with more facility when the natural curl has been eliminated to a certain point by the operations of finishing. In this way the sewing machinists are able to augment the production from the machines as well as to turn out the goods in the most presentable form.

The number of operations required in the finishing of knitted fabrics and knitted articles depends largely upon the special requirements of the market.

for which the goods are destined. It is more economical to knit non-dyed than dyed wool, because there is less strain on the eyes of the knitter, and it is more difficult to work dyed yarns because the threads are apt to stick together. The dyeing of self colors is, therefore, mostly accomplished after knitting. The character of the finishing needs to be regulated with regard to the nature and the quality of the coloring matters that have been used.

### FINISHING OF STOCKINGS

The major part of these articles are knitted from non-dyed wool, the material then degreased, dyed and pressed. The wool articles of the cashmere type are often made non-shrinkable, whereas those composed of common wool are fulled and brushed. Children's stockings and socks are degreased and then bleached by the gas method. The cotton hosiery goods are mostly bleached. Men's stockings and socks made from mixtures of fancy wools are simply pressed. In general hosiery is turned inside out and then degreased in a liquor of soap and soda. The machine employed for this purpose consists of a rectangular vat provided with means for intermittently moving the goods and performing the necessary batting motion. The scouring liquor is used at a moderate temperature, for if too high too great shrinking and other defects will occur. After scouring, the goods are washed with warm water, containing a small amount of ammonia, in a rotary machine. This course of washing greatly improves the handle of wool goods and removes all traces of alkali, which if left in the goods would cause trouble in the subsequent dyeing-operation.

### DYEING OF HOSIERY

Dyeing is generally effected in a rotary machine, in which both the material and the liquor are kept moving. Special machines are constructed for the dyeing of cotton hosiery with the sulphur dyestuffs. Wool hosiery is ordi-

narily dyed by means of the acid dyes, although for blacks logwood on a chrome mordant is often used. In applying the acid dyes it is the custom to plunge the wetted-out articles into the boiling liquor and to continue the manipulation at the boil with the object of assuring penetration of all the sewn and reinforced parts of the article. The principal shades are black and tan, but all fancy shades are also required nowadays, but in relatively small lots, to match the color of the skirts worn. After dyeing the goods are rinsed, whizzed and dried, then damped and placed on wooden shapes in a steam-press. The coloring matters used for the dyeing of hosiery should be suitably selected, and should withstand the action of organic acids (perspiration), washing and be fairly fast to light. The finished stockings are examined, folded and made up ready for sale.

### FINISHING OF UNDER-VESTMENTS

Knitted undergarments of wool are degreased, fulled and pressed. A more energetic treatment is given in the fulling than in the scouring, both in the form of the mechanical manipulation and the strength of the liquor. The machine used for the purpose is shaped with a half-spherical bottom provided with beaters, which are so operated as to give regular and continuous treatment. Fulling is an operation demanding much attention, particularly with regard to the factor of temperature and the strength of the liquor.

### FINISHING FABRICS BY CONTINUOUS METHODS

Hosiery goods in the piece form are now degreased, fulled and in some instances bleached and dyed, and even dried, by continuous methods. In one method of combining the degreasing and the fulling, the fabric is carried along, at full width, by a series of squeezing rollers, through a specially contrived machine. The machine is enclosed, and the operations of degreasing, squeezing and fulling are carried out in

mined, generally one hour. Washing is generally accomplished in the same machine. The operations of bleaching and dyeing are also carried out by similar method. Another important operation of finishing, of a continuous character and which can be used with success on cotton and dyed goods, is that of calendering; a combination of pressing and lustering. In the best machines, the tubular fabric, after having been stretched to the necessary extent, is passed between a heated roller and a felt apron moving at a speed different from that of the roller, this action giving the pressing of the lustering on the face of the fabric; a further part of the machine executes the work on the other side of the fabric. This machine is not used for the treatment of cashmeres. Self and creped tubular fabrics are often brushed on a machine like the ordinary raising machine, consisting of a large cylinder carrying two series of horizontal cylinders and carders turning in inverse directions.—*From Le Moniteur de la Maille in Textile Colorist.*

## DU PONT COMPANY TO MANUFACTURE ARTIFICIAL SILK

The Du Pont Company of Wilmington, Del., and the Comptoir des Textiles Artificiels, of Paris, France, have entered into an agreement whereby a new company will be formed in America for the manufacture of artificial silk. Announcement is made that the "Du Pont Fibersilk Company" with a capitalization of \$4,000,000 has been organized.

The Comptoir des Textiles Artificiels controls practically in France, Italy, Belgium and Switzerland.

The Du Pont Company has done extensive experimental work during the past five years and has developed a fund of knowledge and experience which will add materially to the enterprise. The commanding position of the Comptoir in Europe and the Du Pont Company in America insures the success of this undertaking. The new company will have the benefit of the

wide experience and practical work of the French organization so that the combined knowledge available to those who will manage the new undertaking will enable them to build a factory, on the most modern and efficient lines, to produce a product of the finest quality.

Plans for the new buildings are about completed. It is anticipated that the plant will be in full operation within a year.

The directors of the new company will be Lamot du Pont, Walter S. Carpenter, Jr., William C. Spruance, Jr., W. F. Pickard, F. Donaldson Brown, Leonard A. Yerkes, Benjamin C. Paskus and Albert Blum. Mr. Yerkes will be president of the company, Maurice du Pont Lee will be the production manager and Dr. George Rocker will be chemical director.

The offices of the new company for the time being will be in the Du Pont Building, Wilmington, Delaware.

## FOURTEEN POINTS FOR SALESMEN

BY H. GARDNER MCKERROW  
(National Aniline & Chemical Co.)

1. A salesman's function is not only to secure orders but to obtain information. There are five cardinal points on which a salesman should endeavor to inform himself wherever possible.

- a. What a man uses.
- b. How much he uses.
- c. Where he is now buying.
- d. What he is now paying.
- e. When he buys.

This information, when it is possible to secure it, accomplishes 50 per cent of a salesman's work.

2. All business is based on confidence. Your success in selling will be determined by the buyer's confidence in you and your own confidence in the goods you are selling. No salesman can be successful when he is trying to sell goods in which he has no confidence or for a firm for which he has no respect.

3. The personal touch is the secret of gaining a man's attention in the first place. Always look your customer in the eye when you are talking to him.



If possible, place yourself with your back to the light and with your customer facing the light. This is not always possible, as some buyers are well aware of the advantage of this arrangement and place their visitors' chairs in such a position that the latter face the light while the buyer has his back to it.

4. When you have an opportunity to wait for a man to whom you expect to sell goods, use your eyes. Every man's office contains indications of his character; the pictures on the walls, the articles on his desk (in so far as these can be observed without improper inquisitiveness), are all personal guide posts, and will frequently give you a cue to the personal touch which is necessary to gain a man's attention.

5. If you are talking to a man who seems interested, even if he has not yet been brought to the point of closing an order, do not, under any circumstances, hurry away to catch a train or a car. Stay there until your business is finished, even if you have to stop in that town overnight.

6. No buyer is ever permanently satisfied when he has been "persuaded" to place an order. The only satisfactory way of securing an order is to convince the buyer that it is to his best interests to buy your goods.

7. If a customer is palpably pre-occupied or busy with his mail, make your interview as brief as possible or postpone it altogether. If you force an interview under such circumstances you establish against your-

self a handicap of a certain amount of antagonism.

8. Always endeavor to consider the proposition you are making to a customer from his point of view as well as from your own, and never be afraid to tell a customer that your proposition is one which does not properly interest him, if you honestly feel that the conditions as set forth by him indicate this to be the case.

9. If a customer asks you a question which you cannot answer properly, never be afraid to tell him so; at the same time inform him that although you cannot answer it at the time, you will be in a position to answer it the next time you call. Follow this up by seeing that you are properly informed so as to do so.

10. Never make a claim for the goods you are selling unless you absolutely know it to be true. For instance, if you are selling dyestuffs and a man asks you whether the color you are offering is a compound or a mixture, do not state the color to be a straight, homogeneous color unless you know it to be so. He can very easily prove on the spot that you are wrong if you should state it to be a straight color when it is not, and he immediately loses confidence in you.

11. If a customer wants further information or samples, always express a willingness to obtain these immediately from your home office and make a point of doing so without delay.

12. Never run a competitor's goods down; remember that every knock is a boost, and no buyer will have confidence in your claims for your own goods when you take the attitude that no other competitor's goods are worth buying.

13. After such preliminary personal talk as may be necessary to gain a customer's attention, tell your story concisely and directly and make your interview as brief as is compatible with good business. The successful salesman is not the man who talks most but the man who can tell his story in the most brief and direct manner.

14. Make your reports to the home office full and complete. Whenever you have made a quotation give particulars of this, including price, terms and time of delivery promised (if any). It is the systematic confirming of quotations by the home office which clinches your call and helps to fasten your identity in the customer's mind.—*The Sales Manager.*

## Dye-a-Grams

"Change of Shade in Artificial Light"  
—*Headline.* It's the natural light that bothers most of us.

Constructive legislation. . . . Beg pardon? . . . Destructive, you mean!

Fast vat dyes—fast to what? To the vat, o' course!

"Cottons in Mexico"—*Headline.* Must be going down—looked as if they were going skyward.

Senator Keyes was helping also—helping to keep the dye bill locked up.

Excerpt: "American dyestuff manufacturers are straining every effort to keep these thousands of factories run-

ning." Gosh! It's a relief to know who has been bearing the strain!

The dye bill for an all-American industry got about as much support in Congress as an American citizen does in Mexico!

If we could sling a pen like some textile journal editors and not say any more, we'd sling it away!

The Senators must have thought someone was trying to hand them a phoney Bill . . . they were certainly afraid to try to pass it!

Along came Moses—when most was needed a Solomon.

If one could only "mosey" Moses from the Senate as Herbert was "Hooverized" from California . . . !

The color cards produced by National and Newport are a credit to their organizations, and should be utilized by all—Americans!

G. E. T.

The first report of the British Dyestuffs Corporation for the year ending October 31 shows revenue available for dividends sufficient to pay 8 per cent on the preferred shares, but nothing on the deferred. While the result has disappointed many, the capital of 5,000,000 pounds issued last July was unremunerative during that period. The corporation is the merger of British Dyes, Ltd., and Levinsteins, Ltd.

U. S. Patent 1,333,807, issued to John Lavery Kane, of Philadelphia, describes the production of azo dyes, the first claim of the six granted being: In the production of azo dyes, the improvement which comprises treating an amino aromatic body with a starchy material, while in an aqueous vehicle.

## OPPONENTS OF THE DYE BILL

Senator Thomas is fighting the dye bill because as a Democrat he conscientiously believe that we ought to bring into this country any German or other goods that we can buy cheap. He cannot get beyond the economics of the situation. Senator Moses and his associates profess to fear that the protective tariff is endangered by the bill. They cannot get beyond the economics of the situation. Some textile interests think they can make a little more money now by buying German dyes, when, owing to the exchange, labor can be bought in Germany for 16 cents a day, and they have a plan in view also to revive Schedule K, which they think may be helped if they emasculate the dye bill. So, among the opponents of the bill there is not to be found one who has vision enough, or foresight enough, or, in some cases, unselfishness enough, to see that the question is not an economic one at all, but has long ago been taken out of that sphere by the exigencies of national safety. Thomas A. Edison has stated the case clearly—a protective tariff alone would merely assure the rehabilitation of German-dye monopoly in America.—*Manufacturers' Record*.

The Michel-Bilodeau Chemical Company, Inc., wholesale dealers in drugs, chemicals, dyes and toilet articles, is now operating under the name of the Sword-Bilodeau Company, Inc. This concern recently removed to its new building, consisting of 25,000 square feet of floor space, at 33 Clementina Street, San Francisco, Cal.

A certificate has been filed in the office of the Secretary of State by the Zinner Chemical Company, a Delaware corporation, to do business in New Jersey from an office at 320 Front Street, Perth Amboy, with Daniel Zinner as agent. The company's capital is \$500,000, and it manufactures and deals in acids, chemicals, alkalies, salts, dyes, colors, etc. The incorporators consist of T. L. Croteau, S. E. Dill and M. A. Bruce, of Wilmington.

In his campaign for the Democratic nomination for Congress in opposition to George P. Darrow, Daniel F. Waters, president of the Master Dyers' Association of Philadelphia, recently told a delegation of business men who called on him that his platform was protection for infant industries, particularly the dye industry.

British Dyestuffs, Ltd., has opened its head office for Canada in Montreal, where adequate warehousing facilities were secured. The Toronto warehouse and office will be maintained as headquarters for western Ontario, and James M. Turner, Canadian manager, is optimistic over the prospects for all companies in the Canadian dyestuffs field this season.

Announcement has been made by the Color Service Corporation, known as the Kalle Color & Chemical Company prior to its liquidation by the Alien Property Custodian, that the Chicago offices of this concern have been removed from 330 West Kinzie Street to 449 North Wells Street. The manager of the Chicago office is Paul O. May.



### NOTES OF THE TRADE

The Atlantic Dyestuff Company made the first shipment of finished material from its new works at Portsmouth, N. H., last week; shortly many of its products will be made at Portsmouth, thus relieving the crowded condition of its works at Burrage, Mass., which is now overtaxed in its efforts to take care of the Atlantic company's business.

Under the laws of Delaware the L. P. C. Chemical Corporation has been incorporated with a capital of \$500,000. The incorporators consist of Samuel B. Howard, Raymond J. Gorman and George V. Reilly, of New York.

Announcement has been made to the trade by the Mountain Varnish & Color Works, New York, that the capital of this concern has been increased from \$1,500,000 to \$2,400,000.

Thursday, June 3, is the date set for a special meeting of the stockholders of the Reliance Aniline & Chemical Company to vote upon the conversion, share for share, of present preferred 6 per cent stock into 8 per cent cumulative preferred without the right to participate in extra dividends and to cancel

the present restriction against the declaration of extra dividends until a sinking fund has been established. Stockholders will also be asked to decide upon increasing the authorized common stock from 1,000 shares without par value to 5,000 shares without par value.

Under the laws of New York the Midvale Products Corporation has been incorporated with a capital of \$20,000 to deal in chemicals and dyes. Headquarters will be in Manhattan, and the incorporators include M. and B. Neifield and M. H. Fischer.

Announcement has been made by the Garfield Aniline Works, of Brooklyn, N. Y., that the capital of this company has been increased from \$75,000 to \$200,000.

To deal in chemicals, oils and dye-stuffs, the Lafayette Products Corporation has been incorporated under the laws of New York with a capital of \$100,000. Headquarters of the new company will be located in Manhattan, and the incorporator named is A. V. Halper.

Announcement has been made that Marior Speiden has resigned from the National Aniline & Chemical Company to take charge of the chemical department of Rockhill & Vietor.

What is said to be the best equipped and most complete research laboratory in the dye industry has been opened by the United States Color & Chemical Company at Ashland, Mass. The cost of building and equipping this laboratory was \$150,000.

Trade Commissioner Ferrin, at Melbourne, Australia, recently cabled the Bureau of Foreign and Domestic Commerce to the effect that all Australian import prohibitions have been removed except those on dyes.



# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 23

June 7, 1920



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By Dr. Louis J. Matos





# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, June 7, 1921

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## ADJOURNMENT "SINE DYE"

**"Rest" Will Prove Devoted to Politics and  
Senatorial Playtime Dostly to the Country.**

**A**T the eleventh hour last week a slight wave of hope swept over well-wishers of the dye industry; talk of the possibility of a compromise being effected with Senator Moses gained currency, and in general the traditional action of a drowning man clutching at a straw appeared to be taking place in the customary manner.

Unfortunately the final issue will be delayed until after this number of the REPORTER has gone to press. By Saturday, June 5, Congress will have adjourned *sine die*, the Senate having adopted the resolution of the House after defeating efforts to turn adjournment into a recess until after the conventions. There seems little likelihood of an extra session being called, President Wilson having announced his intention of refraining from reconvening our national legislators unless some "grave necessity" arises. This, we take it, means some grave necessity other than those which arose many months ago and which are still very much to the fore.

August 31, July 12 and August 2

were proposed as dates for reconvening by Senators Kenyon, Jones and Trammell respectively, but all three resolutions were defeated by large majorities. The last-named uttered the sentiments of many when he said: "The question before Congress is whether we are going to abandon our duties to play politics." That not all Senators are satisfied with the doings of the past session was shown by Senator Simmons, who, declaring that the Republican majority of Congress was responsible for the record of the session, said he thought Congress should remain at work.

It is really to be wondered how many members of the Senate can go off to the conventions, and later to their homes, remaining away for half a year, feeling that they have been conscientious and energetic public servants. It may be that some of them actually do feel that way; if so, there is no hope for them, and the eventual overwhelming defeat at the polls of those who have betrayed their trust would be the best thing for the country and the best

thing for themselves. Many of the Senators are highly successful business men, but the minute they acquired their offices they apparently forgot all their knowledge of business and became forthwith pitiable, vacillating creatures, slaves of the petty bickerings and propitiatory tactics which someone told them was necessary to political success. They would no more think of conducting their business affairs as they conduct the affairs of the biggest business organization with which they have ever been connected, than they would think of withholding the advertising of their business houses from the newspapers of their home States, and it is this very policy which will more than likely bring about their downfall. The public is heartily sick of inaction and the placing of private interests ahead of the nation's interests. A man in a canoe approaching a rapids can, by shutting both eyes, avoid seeing the rocks ahead, but by so doing he seals his own fate; he is making certain his own upset. The Senate during the past session has disposed of a great many important questions by refusing to see them, whereas a bold and frank grappling with each problem as it came up, a sincere determination to ascertain the right or wrong of a thing and to act accordingly, would have gained for all the respect of the entire country and, furthermore, would have retained the confidence even of those who took issue with decisions rendered.

Of all the developments of the form of Government under which we live—which, it must never be forgotten, is a first-rate form of government and would be still better if more voters would exercise their rights of citizenship and take an active interest in the doings of their representatives—one of the most vicious and degrading to those who take part in it is the filibuster. It would be hard to frame a rule which would eliminate it from our legislatures; nevertheless it seems certain that it must go, and with its passing the republican form of government will have made a great step forward. The reason why it is such an evil is because it

is seldom employed except to prevent the majority of a legislative body from accomplishing its purpose—which is why we have legislative bodies. Its end, although possibly far off, is as inevitable as the natural elimination of any other unhealthful and parasitic thing.

The Senate is winding up its share of this session of Congress with one of the most vital issues of the day deliberately ignored—or, rather, unsettled. The majority favoring the enactment of the dye bill cannot be blamed. Responsibility rests upon the shoulders of those who conspired with Senator Thomas to keep it smothered under a flood of oratory. Senator Thomas gained the floor and held it for practically the entire time allotted to a discussion of it. Under the rules, those who would have prevented this were powerless. The measure simply could not be brought to a vote.

That there was renaissance of optimism just before the end of the session was shown by a number of statements in the trade press, and hope was likely kindled in the hearts of some when so keen and able a follower of the battle as Dr. Charles H. Herty ventured upon a prediction that something would be accomplished ere the sun set for a frigid, Arctic night of six months' duration. Dr. Herty said, in an editorial in the *Journal of Industrial and Engineering Chemistry*:

"In the early part of 1917 a determined filibuster by a small group prevented the Senate from granting the President the right to arm our merchant ships, but the will of the Senate to guard American rights against German aggression finally found the means of asserting itself. Now again a small group of Senators has used the rules of the Senate to prevent action upon a measure which, while economic upon its face, is closely bound up with the whole question of preparedness of the nation for any future war which may arise. Statements to us from leading members of the Senate, Democrat and Republican alike, are to the effect that a large majority of the Senate favors

the bill. A subcommittee frankly opposed at the outset to the principles of the bill has unanimously espoused it. The full Finance Committee with one exception, Senator Thomas of Colorado, has given its approval. Before the Senate adjourns the will of the majority will assert itself—that is our prediction."

Now, it is not for the purpose of proving Dr. Herty's prophecy wrong that the above is quoted. It is a very clear and interesting statement of the situation, and particularly valuable is the confirmation of the knowledge that a majority of the Senate favors the bill. The time is very short now, but our guess is the other way for the reason that the influence of political considerations upon members of the present Senate is so strong as to be almost unbelievable; the Senate is frankly afraid of the issue and will remain so until after election. Should the unexpected happen between this writing and final adjournment, no one would be happier

to see one's own prophecy proven false than the writer.

There is but one consolation, and that is the retention of the trading-with-the-enemy act, which will, since the Knox peace resolution failed of passage, maintain conditions about as they have been and protect the industry during the political field meet.

Balanced against this is the fact that dye consumers will have to submit, for the next six months and more, to the red tape which has hampered their movements, and the fact that the contemplated and needful flow of more capital into the dye-manufacturing industry will be dammed up throughout that time. In this way the development of the industry will be materially retarded and Germany will have six months more to gather momentum. It is disgraceful that such a condition should be allowed to continue.

While the resolution abolishing the war legislation has not gone into effect at this writing, reports declare that it

*(Continued on page 12.)*



**AMERICAN DYESTUFF REPORTER**

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**FACTS? WHAT HAVE FACTS TO DO WITH IT!**

Readers of the *Journal of Industrial and Engineering Chemistry* will chuckle gleefully over the reference of its editor, Dr. Charles H. Herty, to one of the points in the elongated elocutionary endeavor of Senator Thomas. Readers of this publication will chuckle, too; and hence, although we have already quoted Dr. Herty extensively in another part of this issue, we hasten shamelessly to add yet a few more lines which are really too piquant to be denied the widest possible distribution. In the concluding paragraph of "From the Senate Gallery," Dr. Herty's editorial, we find:

"... there is one personal point we wish to make clear. While admitting that he found himself 'unable to turn to the citation,' Senator Thomas claimed that we had stated 'that the amount of dyestuffs in storage in Germany or under Germany's control amounted to something like 250,000 tons.' Of course he couldn't find the citation. That is an old debater's trick. The citation doesn't exist. If the senator or anyone else can find in our testimony the statement that we considered German stocks to be 'something like 250,000 tons,' we will agree never to appear before another Congressional committee."

Which goes to add one more item to the evidence that the Elocutive One was more or less indifferent to facts just so long as he could continue to use up time; rules of the Senate made the postponement of action of the dye bill no question of able argumentation, but merely one of pulmonary prowess.

**THE CHEMICAL AGE AND THE PUBLIC MIND**

Once again plans are being perfected for the holding of the National Exposition of Chemical Industries—this time the sixth of the line—and the 1920 event, with a record number of exhibitors already listed, gives promise of far outstripping its predecessors, highly successful though these were.

It has been so often stated that this is the Chemical Age that the very phrase has somehow become a little worn and threadbare—in the ears of the unthinking. Nevertheless, it cannot be repeated too many times; its truth cannot be too thoroughly driven home, and those who have thought they knew it so well that they needed no longer to heed its significance will be among the first to gasp with surprise when the doors of the Grand Central Palace swing open on September 20.

For while we have entered upon the Chemical Age we are only at the very threshold. It is true that chemistry is far from being a new science, but the part which it plays to-day in the affairs of men was no more foreseen by the alchemists of old than is its future role understood by the thousands of lay observers who annually throng the booths of the Exposition and rub elbows with the men who are carrying forward the light of chemical progress. But a great beginning has been made in the education of the public, and the more clearly it is realized by the chemists and chemical manufacturers themselves that matters have now reached a point where advancement cannot proceed with ideal rapidity without a wider public understanding of the possibilities of the science, the better for all.

It would be an utter waste of space to rave of the gigantic vistas which are opening before the research worker and his partner, the chemical engineer; of the enormous wastes of natural resources which yet remain uncorrected; of the endless variety of new by-products which will be evolved as corollaries when these problems are solved; of the amazingly complicated gradual interlocking of processes and manufac-

tures, of which the coal-tar chemical industries are a comparatively small—when contrasted with developments to come—but perfect example, until the management of the old and as yet undiscovered products of this country shall have been reduced to as efficient a schedule as now prevails in the packing industry. (Even here they have not found a use for the squeal; but never fear, they will, they will!) Long before that time all our coal and oil will have been exhausted and we shall be drawing all our power from the sun, from waterfalls, and from Providence only knows what undiscovered forces. We repeat, it is useless to rave of what is to come; the chemist of to-day understands perfectly, when he can get time off to let his mind wander that far ahead. But the man in the street has not yet grasped it at all.

This is the problem which must receive more attention in future. While chemistry will continue to make rapid progress, yet it will be constantly ham-

pered to a greater or less degree by public misconception of purposes and often downright suspicions just so long as the mass of humanity remains in ignorance of what the chemists are going to do presently.

We have before us a most glaring example in the case of the dye industry. Had the knowledge of the significance of the dye industry been as common among the one hundred and ten millions of us as is the knowledge, say, of the preparation of food, the dye bill would have been conceived and passed decades before the war was declared. Chemical manufacturers have not only been obliged to overcome the many technical problems connected with their industries, but have had to combat ignorance and suspicion as well, not so much so as when chemistry was held to be one of the Black Arts but sufficiently so to retard progress sadly. They have not had time for both. The right kind of knowledge in the public

*(Concluded on page 12.)*







## THE CHEMICAL AGE AND THE PUBLIC MIND

*(Concluded from page 9.)*

mind would have hastened their triumph. This knowledge does not require to be highly colored; the real truth is about enough to stagger the average layman. Nor are minute details possible or necessary. Sound, fundamental principles, coupled with an ordinarily educated vision, are ample.

Now the manufacturers are going to pay more attention to seeing that a clear interpretation of their position and potentialities reaches the public. It is that which made progress smooth in Germany. The decision of the American Dyes Institute to devote its booth this year to the education of the public is a step in the right direction, and the example may be considered as a precedent throughout the length and breadth of chemical endeavor. The value of the Chemical Show will not in future be gauged alone by the number of technicians who attend, but by the number of lay visitors which it can attract as well.

## ADJOURNMENT, "SINE DYE"

*(Continued from page 7.)*

is certain to be passed before adjournment, the measure having already been sent to the Senate from the House.

Compromise talk centers around the fact that Senator Moses, after having conferred with dye manufacturers, expressed his willingness to make some minor changes in his proposed amendment. The negotiations, it is understood, have been to a certain extent in charge of Harry S. Knight, of Philadelphia.

In this connection a further bit of testimony from Dr. Herty suddenly assumes an even greater interest than it did when it first came to our notice. Such good reading is it that it was the REPORTER's intention to quote it in any case, but this latest news adds to it in no small degree. The statement referred to occurs in the editorial from which we quoted before, which bears the heading "From the Senate Gallery." Read—and smile:

"From the gallery it was a very lonesome scene on the floor of the Senate Monday afternoon. Senator Thomas was speaking, evidently prepared for a long siege. Four or five Senators, known to be opposed to the bill, sat in at the speech, and on the back row sat Senator Nugent, always on guard, missing no point. Clearly a filibuster was on. The smile of satisfaction on Senator Thomas' face during one of the quorum roll calls showed clearly that he was well satisfied with his efforts. Senators Kenyon, of Iowa, and Moses, of New Hampshire, were in frequent conference.

"Speaking of Senator Moses, geography is a strange thing. Whoever would have thought that the opposition to this bill would have brought about so close a union of two towns, Manchester, N. H., and Sunbury, Pa.! Naturally one thinks of Manchester and the great Amoskeag Manufacturing Company when one thinks of Senator Moses. But what about Sunbury, a small Pennsylvania town of 15,000 inhabitants, according to the census of 1910? Doubtless it has grown some since then. Our attention was first called to Sunbury by the Report of the Alien Property Custodian, which shows

(pages 133 and 352) that the Custodian seized 80 per cent of the stock (preferred) of the Susquehanna Silk Mills, Sunbury, Pa., because it was enemy-owned. At Sunbury are located also the Sunbury Converting Works, which, we are informed, were owned by the Susquehanna Silk Mills. At the Senate hearings a rather violent attack upon the bill was made in the form of a statement filed by the Sunbury Converting Works. Furthermore, among the signers of the rather notorious 'Memorandum in opposition to the purchase by the Government through the Textile Alliance, or other official agency, of dyes directly from the foreign manufacturers,' appeared again the name of the Sunbury Converting Works. Now it appears that both the Susquehanna Silk Mills and the Sunbury Converting Works were represented legally by Mr. Harry S. Knight, of Sunbury, Pa., at the time of the seizure by the Alien Property Custodian. But we are getting ahead of the story, for we learned that only to-day. To resume—after the bill had received the approval of the committee, Senator Moses introduced an extensive amendment which dye manufacturers immediately felt could have no other effect than the destruction of the American dye industry. Fortunately, the Tariff Commission studied the amendment and reported to the Finance Committee that it was unworkable. But that isn't the interesting part of the story. In April an extensive reply to the criticism of the Tariff Commission was made by Mr. Harry S. Knight, of Sunbury, Pa. His reply showed such an intimate acquaintance with the Moses amendment that one could easily get the impression that he had written the amendment himself. On our journey to Paris last fall we had a delightful ship-companion in the person of Mr. Harry S. Knight, of Sunbury, Pa. At that time we knew nothing of his interest in dyes. On Tuesday afternoon we entered the Senate gallery and were surprised to find in the same section our ship-companion, Mr. Knight—surprised, because we had not associated

him for a moment with the Mr. Knight who had replied to the Tariff Commission's criticism. Toward the end of the afternoon Senator Moses left the floor, seemingly somewhat hurried. While leaving he passed near our gallery and motioned toward that part of the gallery where Mr. Knight was sitting. Immediately Mr. Knight rose and the two left the chamber by different doors but at the same moment. Perhaps it was a mere coincidence. Possibly Mr. Knight had a sudden uncontrollable desire to take a smoke. We know not. There are some who even go so far as to believe that Mr. Knight wrote the Moses amendment. Again we know not."

And there are many others who likewise "know not" but nevertheless cherish opinions one way or the other. It is rumored that there is hope of modifying the "fair price" provision of the Moses amendment, and it is also rumored that something may be done to cut down the time—which the amendment sets at one year—for which a sup-



ply of foreign dyestuffs may be obtained by consumers.

But the most persistent rumor is that the Senate will not so much as mention the word "dye" again this session—in short, that the only kind of dye our Solons are interested in is an adjournment *sine dye*.

### MONSANTO CATALOG CONTAINS COMPARATIVE SPECIFICATIONS

Both as an embodiment of painstaking, solid achievement and as a herald of American chemical manufacture of the future, the new seventy-two page catalog issued by the Monsanto Chemical Works, manufacturers of chemicals, St. Louis, with offices at 12 Platt Street, New York and 62 London Wall, London, E. C. 2, is a work well worth the attention of scoffers at American chemical ability, of vacationing Senators and of anyone who still believes that the proper type of mind necessary to build up an organization for the production of high-class organic, inorganic and synthetic chemical products does not exist outside of Germany—to say nothing of consumers of these products.

The text matter and general scheme of the catalog, which, in the case of medicinal chemicals, for instance, gives the Monsanto specifications and compares them with U. S. P., as well as B. P. and other foreign standards, reveals unmistakably that when the company was founded in 1901, its organizers not only realized the truth of the adage regarding "the survival of the fittest," but likewise possessed the vision to determine what would constitute the fittest, from a chemical manufacturing standpoint, in years to come. Thus, they developed their organization on the theory that the

tendency for big-scale production, when accompanied by haphazard, careless methods, was all wrong, and that first of all it was necessary to achieve unassailable quality, after which quantity production would inevitably follow in the wake of the demand created.

To illustrate the novel features of the catalog, a specimen item, taken from page 14, is given herewith:

#### ACETANILID, U. S. P.

$C_6H_5.NH.CH_3.CO$  135.08

Manufactured in two forms, the crystal and the powdered. A powerful antipyretic used extensively in remedies for headaches, neuralgia, etc. Used by tablet manufacturers, pharmaceutical houses, patent medicine manufacturers, etc.

#### MONSANTO SPECIFICATIONS:

White shining, crystalline laminae or white powder.

Free of aniline salts.

Ash: not over 0.05 per cent.

Melting Point: 114-115 deg. Cent.

U. S. P. Melting Point: 112-114 deg. Cent.

British Pharm. Melting Point: 113 deg. Cent.

German Pharm. Melting Point: 113-114 deg. Cent.

Japanese Pharm. Melting Point: 113-114 deg. Cent.

The long list of medicinal chemicals which follows includes Dr. Dakin's discoveries for the improvement of the Solution which bears his name, Chloramine T and Dichloramine T, which are now marketed in stable form and for the use of which an elaborate technique is not necessary.

Chlorcosane and Halazone are also included in the list of the newer antiseptics.

Of particular interest is the description of the company's synthetic camphor plant, which is being constructed in connection with the East St. Louis works, and is the outgrowth of the demand for a product which is no longer available in sufficiently large quantities to satisfy the rapidly growing need. The gradual diminution of the Japanese supply, coupled with the wants of many manufacturers including the producers of celluloid, whose natural expansion has been accelerated by the relentless demand for moving-picture film, makes synthetic camphor the only solution of the problem, and the Monsanto company, having an improved method of manufacture which has been developed after years of effort by various manufacturers the world over, has determined to make its production a success. The synthetic product will be equal to the natural for all practical purposes, and it is expected to have the new plant producing by the end of the year.

In addition to many chemicals derived from coal-tar intermediates, including soluble and insoluble saccharin, the Monsanto company undertook in 1914 the production of all the intermediates required in its manufactures, and which prior to that time had been imported from Europe. Today it is wholly independent of all foreign sources of supply. In order to further strengthen its position, it acquired in 1917 the acid plant of the Commercial Acid Company, and in 1919 began the erection of an electrolytic plant for the manufacture of caustic soda and chlorine, which plant is now about completed.

The production of chemicals is the one line which admits of absolutely no camouflage of any description; scientific facts are the most cold and unyielding of all; either a product is good or it is no good whatever. Only by the most precise methods and un-

flagging attention to minute detail can satisfactory results be obtained. In this industry, eternal vigilance is the price of success; the manufacturer with his eye on speedy profits is automatically eliminated the moment he encounters any real competition. In its pursuance of the policy of "building from the ground up" the Monsanto company has set an example which can and must be followed by every aspiring producer of chemicals in the country, for upon rigid adherence to this policy does the chemical future of America depend.

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The Adriutha Silk Fabric Company, a firm newly incorporated at Amsterdam, N. Y., has acquired the former Shutts Mill and is to begin a business of winding, warping and weaving. The company will manufacture silk jersey and tricot cloth, and women's gloves, hosiery and underwear. Jeremiah Sullivan is president and John J. Riley vice-president.

## Dye-a-Grams

The "poses" of Senator Moses are not helping the cause along!

—O—

Who is to blame for throwing the dye bill into the political arena.... Friends of the bill?

—O—

It is the "passing the buck" policy of the machine-controlled politicians that is making Hiram J. so popular.

—O—

Indigotine, like the criticisms of the dye bill, will not stand the light of day!

—O—

The "silent support" given the dye bill by a number of our textile papers may be one they will regret.

—O—

In order to arouse the "spirit of '76" it might be a good thing to rename the Longworth bill the Lusitania measure.

—O—

The dye bill, having aroused the ire of "Doc" Moses, suffered a relapse in consequence!

—O—

In this day of a muzzled press, it is easier for a Bolshevik than for an American to express himself!

—O—

—If the above is true, the dye bill has a large coterie of Bolshevik non-supporters.

—O—

And will these selfsame politicians have the nerve to unfurl Old Glory at their political rallies?

The versatility of the dye bill's opponents might be eliminated to some extent by locating the jug-ular source of supply!

—O—

Time changest all things.... Two years ago, soldiers in France—now German lobbyists in Washington!

—O—

Given a gun and a uniform, some of our Senators wouldn't know how to act in a real filibuster.

—O—

Thomas A. Edison's letter, read during the dye debate, must have opened a few eyes—which isn't the first time he's furnished light!

G. E. T.

## AULT & WIBORG INTERESTS PURCHASED BY S. C. I., SANDOZ AND GEIGY

President Louis A. Ault, of Ault & Wiborg Company, announces the sale of the company's properties to a syndicate representing the three principal dye works of Basle, Switzerland. It is purposed to form an American corporation to take over the operation of the dye and chemical works, and the management of this new company will be in the hands of the Swiss interests.

The Ault & Wiborg Company will retain a large interest in the new corporation, and Mr. Ault will be a director. He says the Swiss interests have been in the dye manufacturing business for more than 50 years, and are masters of the business. The plans contemplate the addition of



other dye and chemical plants to those already in operation, as well as enlargements and extensions to the present plans at St. Bernard and Norwood, both suburbs of Cincinnati. The transfer will be made July 1. It is now reported that negotiations have been in progress for about four months.

It is further stated by Mr. Ault that one of the stipulations of the contract is to the effect that "not one penny of German money, directly, indirectly, remotely or otherwise, would or could be used at any time, either in the acquisition or the expansion of the industry."

The disposal of the dye and chemical plants of the Ault & Wiborg Company in no way affects the other interests of the company, and the ink making and other departments will continue to be operated under the present management and control.

The Swiss companies interested in the purchase are the Society of Chemical Industry, the Sandoz Chemical Works, and J. R. Geigy, S. A., represented in the United States heretofore by agencies for the sale of their products.

The Society of Chemical Industry has plants at Basle, Petit Humirgue, and Monthey, in Switzerland; and St. Fons in Lyons, France; Pabianice and Moscow, Russia; and Clayton in Manchester, England. The Society manufactures coal-tar products, and basic, acid, direct, sulphur, mordant, and vat

colors for all textile materials; specialties for silk; artificial silk, wood, straw, leather, paper, jute, ink and lakes; also making a specialty of synthetic indigo.

The Sandoz Chemical Works has a factory at Basle, Switzerland, and is represented in England by the Sandoz Chemical Co., Ltd.

The J. R. Geigy plant is also located at Basle. In the United States the firm name is the Geigy Co., Inc., with offices in Barclay Street, New York.

The Swiss interests assuming control of the properties are all of unquestioned ability and standing, and should prove a most important factor in supplying this country with needed vat and other colors.

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## PINK STAINS ON BLEACHED GOODS

By DR. LOUIS J. MATOS

From the earliest times, bleachers have been more or less troubled with stains of various kinds appearing upon their goods after they have been finished and placed upon the market. These stains have been of various colors or hues, and have been attributed to innumerable causes.

Almost everyone in the textile industry is more or less familiar with stains produced by iron, which perhaps are the most common of all stains appearing on bleached goods. There have been stains caused by the presence of oil, usually machine oil, that has either been

splashed or dropped upon the fabric in its course through the mill. Another group of stains is variably attributed to that more or less unknown quantity—organic matter in water. Search of textile literature shows that when we have been somewhat in doubt as to the cause of a stain upon bleached goods that failed to react with usual chemical reagents, it has been charged against organic matter.

At times there have appeared upon bleached cottons stains which when carefully examined microscopically have been shown to be the result of a fungoid growth, and which we then report as mildew. A volume now long since out of date, but yet alive with much matter of vital interest in the matter of stains on cotton fabrics, written by George E. Davis, a well-known British chemical engineer, and based upon experiments made in connection with the famous Manchester goods case, is of vital interest to-day in view of the frequently recurring instances where stains of seemingly unknown origin appear.

From time to time other stains become prominent, which are accredited to the presence of over-liming and to the use of too much caustic, and also in some instances to the presence of traces of acid that have not been completely removed from the fabrics after they have been boiled and soured.

*(To be concluded.)*

### NOTES OF THE TRADE

Announcement has been made by the United Dyewood Corporation that this company has declared a dividend of \$1.75 a share on the preferred stock, payable July 1, and a dividend of \$1.50 a share on the common stock, also payable July 1, both to stockholders of record June 15.

The American Textile Soap Company, formerly the Fiske Manufacturing Company, has bought a plant at Mansfield and will increase production. The plans now under consideration indicate clearly the striking growth of the textile industry, which uses 70 per cent of the products of the company.

Under the laws of New York the Faixon Chemical Company has been incorporated with a capital of \$30,000. Headquarters of the new concern will be located in Manhattan. The incorporators include C. P. Kramer, R. E. Maber and H. F. Klemens, 1102 Putnam Avenue, Brooklyn, N. Y.

The Clifton Textile Company, of Union Hill, N. J., has awarded a contract for the construction of additions to its plant at a cost estimated to be in the neighborhood of \$500,000. This firm specializes in the manufacture of broad silks.

At Cowpens, S. C., the Daniel Morgan Mills, recently chartered, have organized with J. M. Archer, of Charlotte, N. C., as president. The company has a two-story 75 x 75 foot building and will install machinery to the value of \$40,000, including 300 looms and a 50-horsepower electric motor. The daily output will be 500 table covers.

Under the laws of Alabama, the Talladega Hosiery Mills have been incorporated. The headquarters of the new company, the capital of which is \$40,000, will be in Talladega, that State. The incorporators consist of C. N. Lannier, president; Grace Jemison, secretary, and A. W. Hardin, treasurer.

Plans for the erection of a building, in which will be installed sixty knitting machines, are being carried out by officials of the recently incorporated Shoaf-Sink Hosiery Mill Company, Lexington, N. C. The capital of the new concern is \$100,000, and the purchase of \$40,000 worth of machinery was recently announced.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

DYESTUFFS, COLORS and ALLIED CHEMICALS

*"Circulated Everywhere Dyestuffs are Used"*

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## VIA POST

Open Letter to Congress from Smaller Coal-Tar Products Manufacturers  
Should Make Profitable Summer Reading for Wilful Obstructionists

JUST two days before the United States Senate adjourned—"without leaving any trace"—to enable its members to recover from the severe brain-fag expected to result from choosing Presidential candidates, two incidents of some importance occurred during a meeting of that earnest body—two incidents which will probably exercise a strong influence when our Solons, refreshed and energized, drift back to work again next December.

One of these incidents was the insertion in the *Congressional Record*, by Senator Frelinghuysen, of the open letter of protest to the Senate signed by sixty-three of the smaller manufacturers of dyestuffs, intermediates, drugs, photographic materials, synthetic tanning materials, insulating materials, coal-tar aromatics and synthetic resins. The other was the absolute refutation by Senator Josiah O. Wolcott of the charges of Senator Thomas that the Du Pont interests had planned a world monopoly in dyestuffs with the Levinsteins.

Reference to the latter able and highly gratifying exposition will be found in another column of this issue. The former is about to be set forth in some detail here. It is a matter for rejoicing that both were spread upon the pages of the *Record* before that organ suspended publication for six months through lack of anything in the way of Congressional activities to publish. It will give the Thomas-Kenyon-Moses faction plenty of time in which to become impressed with the fact that their stock of manufactured scandal has been drained to exhaustion. To the figurative messenger boy who knocks at the doors of their understanding with the intelligence contained in these two pronouncements they will be obliged to say, "No answer!"

The letter to Congress contains much material which has been the common knowledge of all who are acquainted with the present and past situation of the dye industry in this country. Its perusal and analysis by both uncon-

vinced and lukewarm Senators should prove exceedingly beneficial in clearing up the question, and should tend to strengthen the confidence and powers of the majority which favor the passage of the Dye bill to a point where they will force its enactment when the Senate reconvenes. It should likewise quicken the realization among all factors of the dye making and dye consuming industries that despite the dignity which deservedly attaches to their calling, Senators and Congressmen are, in plain language, servants of the people, hired at fixed wages to discharge certain duties, and that refusal to function to at least a reasonable extent in accordance with the wishes of their employers should lead to dismissal of those who are wilfully hampering the activities of the others.

As to the particularly important points of the letter, none is more likely to carry weight than the plea that unless the dye industry is given proper protection the small manufacturers will not be able to finance their businesses successfully, and that it is the very large manufacturers, against whom opponents of the Dye bill railed, who are best able to carry the burden of continued delay.

It is pointed out by the signers of the letter that so far from creating a dye monopoly in this country, the Dye bill, if enacted, will prove just the thing needed to give the smaller manufacturer a chance to stay in business, and that it will tend above all things to promote healthy competition. It may be added, in passing, that representatives of large dye manufacturing corporations have more than once voiced this view, both publicly and to the writer. "Open, unrestrained foreign competition," said one, "if permitted to exist before a reasonable period, will inevitably hit the small man first and knock him out."

Another telling item, though not new, is the fact that just after the war began consumers of dyestuffs, as a class, importuned the dye manufacturers to do everything in their power to increase their production facilities as

speedily as possible, at the same time condemning their own shortsightedness in failing to support proper protective measures long before.

"When we small manufacturers do not fear the effects of a monopoly," another paragraph of the letters says, "why should the Senate fear it?"

The deterioration of plants not kept running continuously, the contrasting wage scales of this country and Europe, the damage to the business of small manufacturers, already begun, through promises of importers to deliver quickly at lower prices, and the intention of Germany to sell at a loss, if not prevented, only to make consumers "pay through the nose" later on by raised prices after American competition has been eliminated, are all brought out prominently.

The letter contains twenty-two "points" which, the signers declare, should be made plain to all concerned; they should be thoroughly understood by the reading public, by customer and by Senator alike. Selected portions of the letter, reprinted for both educational and recording purposes, follow:

"During the recent debate in the United States Senate on the bill H. R. 8078, to protect the coal-tar chemical industry of the United States, there was some rather vigorous comment on alleged contract relations between the Du Pont Company and one of the large English concerns engaged in the manufacture of dyes. It was asserted in that connection that there was imminent danger of building up an American dye monopoly if the bill should become a law.

"This comment was widely published in the press of the country, and yet nothing could be further from the fact. Nothing also could be more unfortunate for a self-sustaining coal-tar chemical industry in the United States than the creation of such an impression in the public mind.

"It may have been aimed at one or two manufacturers, but it hits the entire American coal-tar industry. On



the other hand, dyestuffs are not the only important coal-tar products.

"We, the undersigned, American manufacturers of dyestuffs, dyestuff intermediates, drugs, photographic materials, synthetic tanning materials, insulating materials, coal-tar aromatics, and synthetic resins, register our protest.

"There is no desire to create a dyestuff monopoly. The public mind and opinion should be set right, and this should come from the United States Capitol, and not from the managers of one or more political factions.

"Clear this matter right, right now, on the following misunderstood points:

"1. That we are positive that no such danger exists and most emphatically state that everyone of the undersigned, representing the various manufactures, is independent of the other, and that there are no combined interests amongst us; we have at no time planned the creation of a monopoly. Furthermore, we are independent. We aver that none of us have any interests whatsoever in the Du Pont Company, nor has the Du Pont Company any interest in us. . . .

"3. That the Longworth bill might benefit the large manufacturers only is erroneous to say the least. As a matter of fact, the bill will protect the small manufacturers to a much greater extent than the large manufacturers. Because of the technical knowledge required in running the business, the small manufacturer who gives personal attention to the manufacture is placed in a much better position to compete with the large concerns who have to engage experts for everything, and in that way have large production and overhead charges to contend with.

"4. If the present bill is not passed in suitable form, the large manufacturers might be able to stay in business for a long time, because they can produce staple goods on a large scale, this being the kind of products that the European manufacturers would keep away from for a time. The small concerns who are manufacturing mostly

specialties either in dyestuffs or other coal-tar chemicals are going to be hit first, because the Germans are going to deliver specialties first and in that way are going to force the little man out of business in a very short time. Even now the small manufacturers are hampered by not being able to get proper financial backing. The bankers cannot be blamed for their cautiousness, for the reason that they have learned through the papers and otherwise that the coal-tar chemical industry cannot exist without proper and complete protection. The fact is that small producers of specialties in the coal-tar chemical line are suffering now, not so much by actual importation of coal-tar chemicals, but by the promise of the importers to deliver at lower figures.

"5. If we should be left with nothing but a tariff between us and the competition of the German trust, the small manufacturers would stand no chance. The struggle for the market

in our products would depend entirely on financial strength. Whatever duties might be levied the Germans could well afford, with their advantages in costs and experience and with the aid of the rate of exchange, to pay them. By sacrificing, or rather investing in this way a sum so small as to be negligible compared to the capital which the German trust has at stake, they can drive us all out of business and then get their money back, in their old habitual way, by raising prices. Nobody can fight such a battle except a firm of immense resources. A tariff alone will give only the big fellow a chance to survive, and can hardly save even the biggest. The present Senate bill gives us an even chance, and we therefore urge its prompt enactment.

"6. It must be remembered that when the United States got into the war we had a two and one-half years start in the production of coal-tar chemicals for explosive purposes. These were previously supplied to the Allies, who later became our associates in war. Were it not for this start when the war broke out we never would have been able to accomplish the task which we undertook and which finally ended the war in victory for America.

"7. It is well to remember that chemical plants deteriorate rapidly and are suitable for the scrap heap unless run continuously. Therefore we, manufacturers of coal-tar chemicals, urgently ask that the Senate and the House of Representatives give the matter of the coal-tar bill immediate attention for the purpose of safeguarding the interest of the country's national defense as well as the interests of the undersigned representatives of American industries.

"8. The manufacturers, of which this is a representative list, emphatically state that unless the protection is given to the industry that they will not be able to finance their businesses successfully and will therefore be forced to abandon the plans laid out for the further development of a self-contained American coal-tar chemical industry. . . .

"11. Were the peace treaty signed or a separate treaty with Germany entered into to-morrow, the American markets would within a short time be flooded with cheap wares dumped by foreign countries. There apparently are individuals who are attempting to mislead Congress by misrepresentation and thereby are manipulating dilatoriness in passing the bill, in the hope that such procrastination will bring it up for action at a time too late for effectiveness and thus a self-contained American coal-tar chemical industry will be killed without the full knowledge of the American people and by whom this was accomplished. . . .

"15. The chemical plants, if only tariff protection is given, will have to return to prewar conditions; that is, simply as assembling plants for German-made goods.

"16. The coal-tar chemical business is general, and the dyestuffs business in particular, is an individualized business. It requires personal attention, personal acquaintance, and personal contact with the consumers, and therefore cannot be easily monopolized by or transferred to any one of the large concerns in such a short time as the bill provides. . . .

"19. At the war's beginning American manufacturers of textiles pressed the dye markers to increase their facilities to produce more dyestuffs, professing at the same time their former shortsightedness is not encouraging the passage of suitable tariff legislation.

"20. The relative cost of labor considered, the American manufacturers cannot successfully compete with the Europeans. We have recently been informed by a Swiss chemical manufacturer that their labor conditions were bad, their help being paid from \$10.50 to \$13 (60 francs) weekly for skilled labor. The American workers for the same class of labor receive 50 cents per hour; this, based on the Swiss 10-hour day, equals \$30 per week. And our worker corresponding to their \$13 per week help, receives 65 cents to

75 cents, or about \$40 a week. The German labor is paid even less.

"21. American chemical makers find it now difficult to market their products, since the importers are holding out inducements to their customers in the promises of early delivery of low-priced German and Swiss chemicals. This, of course, is well-planned propaganda, estimated to influence the minds of the reading public, of the customer and the Senator alike.

"22. The weal of the American people and the country's safety should not be made subservient to petty squabbles of political factions. That is a wrong. When we small manufacturers do not fear the effects of a monopoly, why should the Senate fear it? We feel that neither factional squabble nor personal animosity were reasons sufficiently potent to withdraw the Senate's action on the Longworth bill.

"The Tower Mfg. Co., 326 Broadway, New York City; Transatlantic Chemical Corporation, 192 Broadway, New York City; U. S. Color & Chemical Co., 93 Broad Street, Boston, Mass.; Atlas Color Works, Inc., 322 Ninth Street, Brooklyn, N. Y.; Butterworth-Judson Corporation, 61 Broadway, New York City; Messrs. John Campbell & Co., 75 Hudson Street, New York City; Chemical Co. of America, Inc., 46 Murray Street, New York City; Dye Products & Chemical Co., 200 Fifth Avenue, New York City; Grasselli Chemical Co., 117 Hudson Street, New York City; Waugh Chemical Co., 2 Rector Street, New York City; Staier Chemical Co., 81 Fulton Street, New York City; Ernst Zobel Co., Inc., 38 Water Street, New York City; United Synthetic Drug Corporation, Jersey City, N. J.; Florasynth Laboratories, Inc., Westchester, N. Y.; White Tar Aniline Corporation, 56 Vesey Street, New York City; British-American Chemical Co., 109 Beekman Street, New York City; United Dyes Co., 2 Rector Street, New York City; Noil Chemical & Color Co., 152 West 108th Street, New York City;

*(Concluded on page 13.)*



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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**WHAT IS A MONOPOLY?**

Read the details of the letter sent by the less powerful manufacturers of coal-tar products to Congress, set forth elsewhere in these columns. If you believe that the Dye bill is dangerous to American principles and that protection for the industry is not a necessary thing, you might spend some instructive moments in trying to overturn the several arguments presented. After that, you can gain further healthful mental exercise by grappling with Senator Josiah O. Wolcott's statement concerning the true facts of the alleged Du Pont-Levinstein agreement.

Thursday, June 3, was an important day for the dye industry in the Senate. All were anxious to finish up as quickly as possible, and pretty much all of the Senators who successfully delayed the Dye bill believed that nothing further relating to it could rise up to confront them before adjournment. Despite the press and hurry, however, opposers were compelled, and supporters privileged, to see the absurd and malicious contention of Senator Thomas taken apart, for all the world like any other defective mechanism; to see its toothless inspirational cogs exposed and its unbalanced motivational flywheel laid bare, to see its warped gears and its numberless incompletenesses revealed to the public gaze, and to see it finally relegated to the scrap heap in full view of its inventors.

In short, Senator Wolcott, in a few well-chosen words, demonstrated the Thomas fancied engine of destruction to be not only unpatentable but wholly

unworkable—a "flivver" in the slang sense but not the automobile sense—a second "Garabad" with the accent overwhelmingly on the final syllable.

Plunging at once into his subject, Senator Wolcott said: "This contract was not set out in full by the senior Senator from Colorado (Mr. Thomas). I have secured a copy of the contract, and ask leave to insert it at this point as a part of my remarks." Permission being granted, Senator Wolcott, after referring to the Colorado Senator's ability as a lawyer, continued:

"In this matter, however, I find that I cannot accept the view that this so-called Du Pont-Levinstein contract contains proof of an arrangement, either improper in its character, reprehensible in its purpose or indefensible in its aims. . . . If, by this language (referring to Senator Thomas' charge) the Senator meant to charge that these two concerns had combined in an illegal way to control markets of the world, then I find myself in entire disagreement with him. . . . It is to be noted that *this contract deals entirely with patented inventions and secret processes*. A patented invention by force of the laws favoring the patentee in the one case and a secret process by reason of the very fact of its secrecy necessarily confer upon the patentee in the one case and the possessor of the secret in the other something that is the equivalent, so far as manufacture, sale and use are concerned, of a complete and perfect monopoly. Indeed, it is the purpose of the patent law to confer an exclusive right upon the inventor to the enjoyment of his invention without interference from anyone and without encroachment from any source. . . . Hence it is said by a text writer that 'Patent rights are property, and the very essence of the rights conferred by the patent is the exclusion of others from its use.' (Walker on Patents, paragraph 151.)

"Courts constantly refer to patent rights as constituting a monopoly. *Between a monopoly of the ordinarily accepted and therefore invidious sense*



*of the word, however, and a monopoly in the sense of an exclusive right conferred by patent statutes there is a wide diversity."*

We now take the liberty of quoting two references which occurred at this point in Senator Wolcott's speech, which are instructive. The first is from the work of Curtis on patents and the second from Hopkins, on the same subject. They follow:

The distinction thus established between those exclusive privileges which the Crown may and those which it may not grant proceeds upon the principle that the monopoly, in the prohibited sense, is a grant which restrains others from the exercise of a right or liberty which they had before the grant was made; whereas the exclusive privilege intended to be secured by letters patent for an invention contemplates something in which other persons than the inventor had not, before his invention, a right to deal, or which they had not a right to use, because it did not exist. Other persons than the first inventor of a thing had the same right to invent it that he had; but as he has been the first to invent it, the patent system—proceeding upon the policy of encouraging the exercise of inventive talent by securing to the inventor an original property, which, without protection, would have rested only upon a principle of natural justice—takes notice of the exclusive right of that first inventor, and makes it effectual by assuming that he who has first exercised the right of invention has bestowed something upon society which ought to procure for him thereafter, at least for a time, the exclusive right to make or use that thing.

Whatever the nature and reason for the adoption of the word "monopoly" into the nomenclature of our American

law of patents, the word has become indispensable through long use, and in a department of the science of law, in which words are of prime importance, probably no other word exists which could take its place. It is used in no offensive or condemnatory sense as applied to the right coexistent with and embodied in the grant of letters patent. It is indicative of that right to exclude all others for a limited time with which the constitutional provision and the Federal statutes, enacted under its beneficent inspiration and authority, have rewarded the inventor's contribution to the store of common knowledge of the public.

Senator Wolcott then showed conclusively that the alleged contract was merely an agreement to share patents and secret processes developed by both companies, which under the law they had a perfect right to do, and further, that in view of the circumstances and the world need, which followed the embargo, it was the most sensible and progressive thing to do and unquestionably contributed heavily to tiding us over the more acute phases of the shortage. He also, incidentally, showed that upon the entrance of the United States into the war, the Levinstein people, possessing the best process for the manufacture of mustard gas, immediately sent us complete drawings for a plant and offered to send their best chemical engineer to supervise the inauguration of the process. By the time the armistice was signed, as a direct consequence, this country was making more mustard gas than all the beligerents put together, with practically no casualties in the manufacturing plant—a condition otherwise impossible



because of the shortness of the time. Senator Wolcott mentioned this incident, he said, because he desired to show that Levinstein, Ltd., had manifested a most generous and helpful disposition to help out at a critical time.

At the time of the Thomas charges, THE REPORTER referred to his efforts as a bit of "cheap sensationalism." How well founded was this opinion is now revealed. The deliberate employment of the technical and legal term "monopoly" in its colloquial and invidious sense shows to what sharp practices the opposition was driven in order to make the public think it had a case.

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### VIA POST

(Concluded from page 9.)

Heller & Merz Co., 505 Hudson Street, New York City; Newport Chemical Works, Inc., Passaic, N. J.; Organic Salt & Acid Co., 81 Fulton Street, New York City; Sherwin-Williams Co., 601 Canal Road N.W., Cleveland, Ohio; Messrs. Van Dyk & Co., 4 Platt Street, New York City; Antoine Chiris Co., 20 Platt Street, New York City; American Dye & Chemical Co., Quincy, Ill.; Imperial Color Works, Glens Falls, N. Y.; Hydrocarbon Chemical Co., Lancaster, Pa.; Industrial Chemical Co., Providence, R. I.; Trico Chemical Co., Buffalo, N. Y.; Hord Color Products Co., Sandusky, Ohio; Abbott Laboratories, Chicago, Ill.; Rector Chemical Co., New York City; Croton Color Works, New York; New Brunswick Chemical Co.,

New Brunswick, N. J.; Iridescent Dye-stuff & Chemical Co., 587 Sheepshead Bay Road, Brooklyn, N. Y.; Messrs. E. C. Klipstein & Sons Co., 644 Greenwich Street, New York City; Commonwealth Chemical Corporation, Newark, N. J.; Hooker Electrochemical Co., Niagara Falls, N. Y.; Althouse Chemical Co., Reading, Pa.; Monsanto Chemical Works, St. Louis, Mo.; Dow Chemical Co., Midland, Mich.; Agawam Chemical Works, Providence, R. I.; Organic Products Corporation, Schenectady, N. Y.; Walker Chemical Co., Pittsburgh, Pa.; Gaskill Chemical Co., Brooklyn, N. Y.; Lamie Color Works; Ackerman Color Works, Patterson, N. Y.; Universal Aniline Dyes, Milwaukee, Wis.; Montcalm Chemical Co., Indianapolis, Ind.; New York Quinine & Chemical Co., Perth Amboy, N. J.; Holland Aniline Co., Holland, Mich.; George H. Morrill Co., Norwood, Mass.; Naugatuck Chemical Co., Naugatuck, Conn.; Anthrajone Dye Products & Chemical Co., New York City; Ultro Chemical Corporation, New York City; Seydel Mfg. Co., Jersey City, N. J.; Reliance Aniline Co., Poughkeepsie, N. Y.; Williams, Zinsser & Co.; Merrimac Chemical Co., Boston, Mass.; Heyden Chemical Works, Garfield, N. J.; Holliday-Kemp Co., Woodside, L. I.; Certified Chemical Corporation, New York City; Dicks David Co., New York City."

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According to the *Journal of Commerce*, fifteen chemical companies of more than \$50,000 capitalization each, and with a total capitalization of \$3,392,500, were incorporated during May, as against total capitalization of \$4,675,000 in April.

## PINK STAINS ON BLEACHED GOODS

By DR. LOUIS J. MATOS  
(Concluded from last week.)

### NEED OF THOROUGH WASHING

It is not the purpose of the writer to review in detail all the technical circumstances that are likely to give rise to the stains above enumerated, but it is probable that every bleacher and bleachery superintendent knows that if the chemical treatment of the goods entrusted to him is not complete, or if the washing operations subsequent to the chemical treatment are likewise incomplete, stains are likely to manifest themselves later. There is no doubt but that insufficient washing is responsible for the presence of more stains in finished textiles than all other causes put together; and it therefore becomes necessary, even in times like the immediate past and the present, that mill officials and those in active control of technical operations should see to it that the washing is assuredly effected.

One of the causes that contribute materially to imperfect washing is the overcharging of the kiers, a condition that at once precludes the possibility of thorough circulation of the wash waters throughout the mass of material to be washed, and leaves pockets or leads where the removal of chemicals, acids, or alkalies as the case may be, is not complete.

### STAINS ON QUILTS

Recently there have come to the notice of the writer, woven and knitted fabrics of considerable commercial importance that are marred with stains having a distinctly pinkish hue. Two of the articles are beautifully bleached and finished bedquilts, and the other is a woman's combination underwear suit. The quilts still retain the original folds as they left the mill. At one end of the quilts, where it is folded upon itself, along the creases of the folds and to a depth of several thicknesses of the fabric, we find this distinct pinkish col-

oration which is quite clear and well defined.

Without investigating any further, at first glance it appears as if the quilt had been subjected to the action of fumes of some sort that acted first on the outside edges of the folds and in the course of time worked their way into the creases to a depth of twelve inches more or less. Upon unfolding the quilt we find that every portion other than the affected part retained its clear whiteness and showed no signs whatever of discoloration. Upon testing the quilt it is found to have been tinted or white-dyed with a blue of some sort. Upon making further tests we find that the quilts possess a distinct acid reaction to blue litmus paper, which proves conclusively that the material of which the quilts are made has not been thoroughly washed after having been soured.

### STAINS ON UNDERWEAR

Giving our attention to the undergarment, we find that after having been made and finished, it was placed in a kraft paper wrapper and this package then placed in cardboard box lined with white paper, only the kraft paper being in direct contact with the bleached undergarment. In this condition it is sold over the counter to the public. Upon opening the inner package and spreading the entire garment to view, it is found that the pink coloration appears in irregular splotches over the back and front; at some parts where one portion of the fabric is sewed to another portion, we find that one part of the garment near the seam is distinctly pink, while the part to which it is sewed retains its original bleached whiteness. Tests of this garment show that the entire fabric is quite neutral and it fails to respond to the usual tests for the presence of acid.

What caused these discolorations? A search of the literature reveals the fact that pink and other related discolorations have been induced by the presence of fumes of aniline. But it is also a noteworthy fact that when the attempt has been made to induce these same

stains or discolorations to appear upon well bleached and purified absorbent cotton in the presence of the fumes of pure and commercial aniline, the latter containing some toluidine, the experiment failed.

#### PINK STAIN ON PAPER

The writer has before him a volume well known to bleachers, entitled "Bleaching and Calico Printing," by George Duerr, published in 1896, and it is a curious fact that the pages of this particular work on bleaching are tinted the same pinkish hue that is complained of in the bedquilts and underwear above referred to. This particular volume is one of a technical library that has been located for years adjacent to a color laboratory where fumes of aniline have been occasionally present, and it is quite likely that these fumes are responsible for the pink discoloration, which has been developed in the course of years by the gradual penetration of the leaves by the laboratory fumes.

#### AN EXPERIMENT WITH PAINTS

In another instance, a distinct pink coloration was noticed upon a bolt of bleached cotton cloth, the output of a well known New England mill, the edges of which were distinctly pinkish only where the edge of the bolt came in contact with the painted edge of the shelf upon which the cloth rested. The

shelf was a plain board, the front edge and for an inch along the top was stained a light oak color. The writer could not interview the painter of this shelf, but from the salesman he learned that the painter had stated that the paint in question used for the woodwork contained aniline, probably as a solvent for some coloring matter. Other bolts in the same establishment had in times past been discolored in the same way, and the trouble was only rectified after the shelving had been freed from the paint.

Referring again to the quilts and the underwear, the writer is inclined to the belief that two causes contribute to the formation of the stains complained of. It is believed the prime cause is insufficient washing of the goods after liming and souring. The other cause contributing to the formation of the pink is the presence of a tinting blue, which reacting at those portions of the fabrics where the acid has not been completely removed by washing, causes the formation of a pinkish coloring matter chemically related to rosaniline.

It would therefore seem that the underlying principle tending to the prevention of the formation of such stains is the complete removal of all traces of acid from the goods before subjecting them to tinting and to finishing. In the case of the bedspreads, the finish or dressing used might contribute to some extent, but this appears to be doubtful in the present instances; certainly no dressing was used on the underwear.

These facts are presented for the pur-



pose of inviting ideas and suggestions based upon the experience of others in this line of work.

—*Textile World Journal.*

## Dye-a-Grams

"Cheap Sensationalism," eh? Senator Thomas went and grabbed the first "cheap" thing we've heard of in some time!

—o—

There is no chance of the Senator who "discovered" sixty pages of informative matter on dyestuffs in the Encyclopedia being classed with the late Commodore Peary!

—o—

If our law makers (?) had spent as much effort in reducing the H. C. of L. as they had in devising "substitute provisions" they might have accomplished something worth while.

—o—

Given the opportunity, there are some men who would have the Stars and Stripes made in Germany—and duty free!

—o—

Excerpt: "When the quality is better, American manufacturers want to purchase German dyes." The quality, we hasten to suggest, will be just what they make it.

—o—

There are too many non-essentials like loafers, tonsils, profiteers and filibusters in the world.

—o—

Nothing that is overdone is well done—applicable to the past tactics of Congress.

—o—

We are not casting any reflections on the governmental body lately adjourned *sine die*, but the crossroads merchant also has a habit of "shelving."

—o—

Now that the Dye bill has been safely shelved, it's probably a good thing for the country that Congress didn't have access to the cellar.

Senator Thomas' capacity for "hot air" is not to be sniffed at. It took him eight hours to get it out of his system!

—o—

"Fixed Policy Needed in Chinese Market" — Headline. The Germans were unexcelled as "fixers," which may account for some of their popularity—in China!

G. E. T.

## NEW DEPARTMENT FOR EUGENE SUTER & COMPANY

Engene Suter & Company, 120 Broadway, New York, have sent out to the trade an announcement which reads as follows:

"Our business in petroleum products has increased so materially, we have found it necessary to add a Petroleum Products Division, with Mr. W. H. Miller as manager.

"Mr. Miller is not only a competent executive, but is familiar with all matters pertaining to petroleum, having been for years connected with the Philadelphia office of the Atlantic Refining Company.

"In the conduct of this division, Mr. Miller will be assisted in maintaining the standards long established by the house of Suter, so that our patrons seeking petroleum products, whatever the magnitude of their requirements, may entrust their inquiries to us with their accustomed confidence in both our integrity and our capacity to serve them efficiently and promptly."

We are also advised that a cable has been received at the New York office from Mr. Suter, who has been in Europe for some time past, that the Swiss end of the business has been incorporated at Basle, under the laws of Switzerland, the corporate title being Eugene Suter Company, Inc. This will not affect the American end of the business, which will continue to be conducted as a partnership, under the name of Eugene Suter & Company.

## PLANS UNDER WAY FOR SIXTH CHEMICAL SHOW SEPT. 20

Plans are now under way to make the forthcoming National Exposition of Chemical Industries, the sixth in the annual series, to be held at the Grand Central Palace, September 20 to 25, the most pretentious yet held. Present indications, according to those in charge of arrangements, are that it will be the largest distinctly industrial exposition ever staged, being one-third larger than its predecessors. The number of exhibitors already enrolled is 358, exceeding the total last year at Chicago. This number cannot be much increased, the managers say, because of the limit of floor space involved, despite the fact that four floors will be used this time. At the first exposition in 1915 there were 83 exhibitors, at the second 188, at the third 288, at the fourth 334, and a year ago at the Coliseum 351. Attendance at the shows has progressed steadily, reaching a maximum of 111,000 during the week at Chicago.

Three special sections, embracing electric furnaces, fuel economy exhibits, and materials handling apparatus and machinery, the last two new, will be featured at the show this year. The program will include sessions on subjects the phases of which will be developed in the exhibits of these latter two sections and there will be special sessions on chemical engineering. Motion pictures will again have a prominent place. The Exposition Committee is composed of the following:

Charles H. Herty, chairman, editor "Journal of Industrial and Engineering Chemistry"; Raymond F. Bacon, director Mellon Institute; L. H. Baekeland, member Naval Consulting Board; Henry B. Faber, Consulting Chemist; Ellwood Hendrick, president The Chemist's Club; Bernhard C. Hesse, chemist, General Chemical Co.; W. S. Landis, president American Electrochemical Society; A. D. Little, president Arthur D. Little,

Inc.; William H. Nichols, chairman board, General Chemical Company; W. A. Noyes, president American Chemical Society; H. C. Parmelee, editor "Chemical and Metallurgical Engineering"; Fred W. Payne, co-manager exposition; R. P. Perry, vice-president The Barrett Co.; Charles F. Roth, co-manager exposition; T. B. Wagner, vice-president, U. S. Food Products Corporation; David Wesson, president American Institute Chemical Engineering, and M. C. Whitaker, president United States Industrial Chemical Company.

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With a capital of \$2,500,000, the Cincinnati Chemical Works have been incorporated under the laws of Delaware. Headquarters of the company have not been announced. The incorporators consist of Albert R. Palmer, Madison, N. J.; Frank R. Harles, East Orange, N. J., and George F. Handel, New York City.

## NOTES OF THE TRADE

F. W. Branson, West Point, Ga., has been appointed general superintendent of mills for the Consolidated Textile Corporation of New York. His headquarters will in future be in Greensboro, N. C.

Albert Rollins, overseer of dyeing for the C. Turner Company, Galt, Ontario, has resigned his position with that company to accept a similar position with the Pitman Manufacturing Company, Laconia, N. H.

Newly elected directors of the Toxaway Mill, Anderson, S. C., are as follows: W. H. Baldwin, New York; Summerfield Baldwin, Jr., Baltimore; J. J. Mitchell, Jr., Philadelphia; W. C. Cleveland, Greenville; Alfred Moore, Tuckapau, and James P. Gossett, J. F. Shumate and B. B. Gossett, of Anderson. The former officers of the company were re-elected and the regular 5 per cent dividend declared at a recent meeting of the stockholders.

A consignment of coal-tar colors from Ste. An. de Couleurs d'Aniline et Produits Chimiques, invoiced at Brussels and entered at New York last September and October invoiced at 15

francs per kilo, has been reappraised at the same sum by the Board of Customs Appraisers.

Announcement has recently been made to the effect that the Tar Products Company, of Providence, R. I., has increased its capital from \$200,000 to \$400,000.

To engage in the manufacture of chemicals, dyes and paints, the Renown Paint Corporation has been incorporated under the laws of New York with a capital stock of \$10,000. Headquarters of the new firm will be located in Manhattan. The incorporators consist of E. W. Leavenworth, R. A. Woodend and T. E. Murray.

Announcement has been made to the trade that the Clifton Manufacturing Company, Clifton, S. C., has increased its capital from \$1,000,000 to \$2,000,000 to provide for expansion.

Damage to the extent of about \$50,000 was estimated to have been done by an explosion and fire in the plant of the Stair Chemical Company, Newark, N. J. Three men were at work in the plant when the explosion, which is believed to have resulted from a leaking gas meter, occurred, carrying away the roof and part of the walls.

Under the laws of Tennessee the Bothwell Hosiery Mill has been incorporated with a capital of \$50,000. Headquarters of the company will be in Chattanooga, that State, and the incorporators include R. L. Bothwell, W. B. Davis and R. E. Davis. It is stated that the new plant will operate 75 knitting machines.

With a capital of \$30,000 the Falxon Dye and Chemical Company has been incorporated under the laws of New York to manufacture dyes, chemicals, etc. Head offices of the new firm will be located in New York City, and the incorporators consist of R. E. Maben, C. P. Kramer and H. F. Klemens, 1102 Putnam Avenue, Brooklyn.





# AMERICAN DYESTUFF REPORTER

Vol. VI, No. 25

June 21, 1920



THIS IS THE JUNE EXPORT  
NUMBER

## Harmony, Inc.

Some More or Less Idle  
Thoughts on the Hoped-For  
Dissolution of Dissension,  
Strife & Co.

## What Do the British Know About Advertising?

An Editorial

## Foreign Trade Opportuni- ties



# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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Vol. 6

New York, June 21, 1920

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## HARMONY, INC.

Some More or Less Idle Thoughts on the  
Hoped-For Dissolution of Dissension, Strife & Co.

THE convention of one great political party has been held; the convention of another great party will soon be in session with whatever strategic advantage may lie in the fact that its rivals have already named their men and "defined" their policies. The country is waiting—not too anxiously to partake of food and slumber, however—to hear the issues which will throw the deciding majority of votes one way or the other. The strain is undoubtedly tremendous, but it is being freely predicted in all circles that the strain will be borne, somehow or other, with that patience and courage which have made this nation what it is said to be. There are as yet no marked signs of a general collapse.

Sixty years ago the Republican party chose one Abraham Lincoln, whose roughness and uncouthness and homeliness and plainness and bluntness have been made so promi-

nent a part of the education of every schoolchild ever since, to run for President on a platform which few believed could carry him and the party to victory, and which all knew was practically certain to hasten the rapidly approaching disruption of the Union. Willing to sacrifice himself and his party, if need be, for a principle, Lincoln tore the Democratic party in half by his queries as to where its leaders stood on the right of free territories to bar slavery. Douglas, Breckenridge and Bell, named by three factions, went down to defeat, overwhelmed by the very flood of soothing syrups which they proposed to pour over the country—and by the magic of a voice which rose high and clear above the tumult in unvarnished definition of a single purpose.

Abraham Lincoln's ability to first see all sides of a question in order to ascertain which was the right side, and his total inability to see any



other side but the right after it had once been settled upon, would have made him a very dangerous candidate for either party to-day, when the political game is but little more cleanly than it was sixty years ago. It is to be wondered whether the delegates at Chicago or San Francisco would have had the courage to name him this year to grapple with the present problems of the country. It is unlikely, but that very unlikelihood is an excellent indication that the dangers which we are now facing are not to be compared with the dangers which beset the United States at the time of Lincoln's nomination. It requires deep feeling and the possibility of having to exercise physical courage in order to arouse political courage. Political courage and politics are seldom bedfellows.

Be that as it may, both parties in the intervening years have taken to comparing candidates with Lincoln when placing them in nomination, and the dignity of that gigantic figure is claimed for all favorite sons and people's choices. The solid South, not so solid as it once was, realizes his service. He is no longer looked upon either as a Republican or a Democrat, but as a standard unit of measurement and quality for Presidential timber. So strong was he that by the sheer force of his personality and clear logic he welded the United States into the whole which, geographically and economically, it was manifestly intended to be. Under a powerful, liberal and respected leader, the advancement of this country is almost automatic. Conditions normally favor a more rapid advancement than has always been the case with us.

While many experts believe that whichever party elects our next President will also have a majority in Congress, it is not impossible that we may again face the dreadful spectacle of a divided and politically-maneuvering rule. It is to be fervently hoped that such a situation may not again arise for some time

to come. A ship whose first and second officers are constantly struggling for possession of the wheel does not travel by the shortest route in any direction, and would cut a sorry figure in an international cup race. It is the ardent wish of those who hope to see things accomplished that we may be at last about to emerge from a condition which unquestionably has been very, very bad.

Elections, as provided for in our system of government, are designed to check office-holders from great follies which might otherwise be committed. In other words, frequent change of rulers insures great unwillingness, on the part of those who wish to retain their positions, to offend anyone possessing a vote. Impeachment makes it possible to act more quickly in an emergency. In so far as our rulers are controlled in their public actions by party consciousness, or the knowledge that whatever mistakes they make will be charged up against others sailing under the same colors, the great party organizations are a good thing. Members of a party are always ready to discipline their companions in arms when they see them preparing to sacrifice the chances of others for re-election along with their own, even assuming that they care nothing for the latter. But it is also inevitable that under this system the political aspirant will at length, in company with his fellows, work toward a state of mind where he begins to hedge on measures which all secretly agree are needed but which are likely to cost the party its power before the public comes to realize their worth. After that it becomes no longer a question of positive virtues, but rather a question of which can succeed in assuming the less blame for honest mistakes such as all humans are bound to make when trying sincerely to do the right thing, or for measures which will eventually benefit but which happen to appear distasteful at the moment of enactment.

Only a great danger can unite all parties and stifle party consciousness. The United States emerged from the war under a handicap which proved to be much greater than most of us imagined when the armistice was signed. That politics has been overplayed is certain. It has resulted in a wicked waste of time, if nothing worse. This country has been limping while it should have been sprinting. A runner with his stride hobbled to two-thirds of its normal length would not have been more greatly handicapped. It is comforting to realize that every year sees a greater number of men—too few yet, alas, to exercise as much power as they should!—who care not a rap which party is in power, if its exponents will only give service. The past months have increased the number. Even your dyed-in-the-wool heeler will, if he is trying to run a business of his own, at last cry, "Cut out the hot air and do something!" if the electioneering lasts too long. The

wildest political orgy must have its "morning after" and likewise its mourning after.

Back of far too many proposed measures was the dominant thought of its sponsors: "What will this get us in the next campaign?" Many needful measures were passed, but far too many were so altered by gentlemen in Congress of opposite political faith from the framers, or were at length so burdened with "riders" referring to utterly foreign subjects, that they were vetoed by the President. Far too many worthy proposals from the office of the Chief Executive were deliberately snowed under because of the fear that an undue amount of credit would accrue to that quarter. Legislative battle-dore and shuttlecock has been the practice. The country is thoroughly tired of the whole business. Moreover, we, the least damaged of the warring nations, have been the most lethargic about reconstruction. We

*(Continued on page 12.)*

**AMERICAN DYESTUFF REPORTER**

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Pointed solely toward the welfare and growth of the American Dyestuff Industry. Unbiased contributions appreciated.

A. P. HOWES, President

LAURANCE T. CLARK, Editor

## WHAT DO THE BRITISH KNOW ABOUT AD- VERTISING?

Who said the British were a phlegmatic, dull, unimaginative race? Who is responsible for the rumor, so current in this country, that your Englishman cannot grasp an American joke when he hears it? Who branded the Anglo-Saxon as being cold, calculating, fishy and unromantic? Surely it wasn't you, Reader. Of course not; we wouldn't have believed it of *you*, of all people. And we ask you not to believe it of us, either. As Bert Williams melodiously might state: "It was somebody else—not we!"

But whoever it was, that somebody owes the British nation an apology. In much of our magazine *fiction*—you'll note, we trust, that the term "*fiction*" is to be more or less emphasized—better read it over again to make sure you get it—it is always the alert, dashing American advertising man who bursts excitedly into the Chief's private office every five minutes, waving a sheaf of notes frenziedly above his head, with the perfectly sizzling, scorching ideas which send the rapidly falling stock of the concern skyward and bring to pass the Twenty Per Cent Dividend and the Delighted Investors. It is always the American who does this, while the Englishman—if there happens to be one in the story—patient, plodding chap that he is, lacks the colorful, picturesque imagination and the dash and fire to achieve such heights.

Not that the Englishman isn't ever so worthy, you know, and all that sort of thing, but he simply hasn't the verve,

the vivacity—the jazz! He is allowed to marry the heroine's best friend, and usually does something or other irresistibly English and stupid while acting as best man for the hero.

You've probably read it before. Now read something else about advertising—an enterprise which chanches this time to be, as the advertisements in the *Dyer & Calico Printer* used to phrase it during the war, "entirely British."

The Federation of British Industries, according to U. S. Consul Calvin M. Hitch, writing from Nottingham, has devised a unique scheme for advertising home manufactures in all parts of the world. A new steamship, to be called the *Federation*, is to be constructed by some of the leading firms of the country as an exhibit of British marine engineering.

But that is not all—not by a long shot! The cargo of the ship will consist of articles of British manufacture. Representatives of the firms interested will make a series of voyages for the purpose of showing their goods and interviewing foreign buyers. It is believed that in this way a splendid opening will be afforded for extending British commerce in foreign countries.

The first voyage, according to present plans, will be made to the various ports of South America, and subsequent voyages will be to the Mediterranean, Scandinavia, Baltic ports, the Far East and Australia. Several Nottingham firms are, among numerous others, interested in the project, and local engineering and textile manufactures will be included in the cargo.

Plenty of wide-awakeness there, it will be admitted, and plenty of verve, or jazz, or anything else you care to call it.

We are, no doubt, a fearfully impractical person, but nevertheless an absurd fancy keeps recurring to us. The scenario of it follows:

Into the magnificent harbor at Rio de Janeiro comes prancing a handsome steamship, built in an American shipyard; painted a vivid red, white and blue from stem to stern with American



paints; and prominently displaying just under its bow a large brass American eagle made in Waterbury, Connecticut, U. S. A. It casts anchor at a convenient hitching post. . . . Strains of "America" from a brass band (instruments all by American makers) on an upper deck brings an excited populace running from all directions. . . . As the dazzled Brazilians cluster about the pier, the hum of American textile machinery in operation below decks whets their curiosity to know what's going on.

The excitement grows. The crowds become more dense. The dock is black with eager throngs, when suddenly. . . . Ah! what is this? The gangplank is lowered and down it come, in single file, the members of the Ziegfeld Follies chorus, attired in the most dainty and bewitching collection of frocks, hats, sweaters and shoes which American manufacturers can turn out—and who shall say they are so far behind their Parisian brothers in this?—dyed

in the most delicate of pinks, old roses, lavenders and yellows from American dyes, to match shades from the Standard Color Card of America . . . leather in shoes finished with American colors . . . feathers in hats the same . . . fur pieces ditto—a veritable riot of ravishing hues. Gosh!

. . . The young women are followed by a long line of the youths who pose for the collar and cigarette posters which the brush of Mr. Leyendecker has helped to make so famous all over the country . . . youths immaculate in their superbly tailored and more soberly tinted apparel . . . their penciled shirts . . . their stylishly cut collars . . . and their knitted silk neckties of striking design and color scheme.

All this time industrious individuals have been distributing handbills representing the choicest products of our paper mills, explaining the significance of the proceedings to everyone who







cares to read—explaining that the various tints of the handbills are obtained with American dyes . . . that the striking pictures in colors which adorn them are examples of American printing, and that the very inks used to produce the beautiful effects so apparent to all but the color-blind, are American inks—and that the dyes used in *their* manufacture are Amer . . . Amer . . . Amer . . .

At this point the scene usually fades out on us.

We will not use up space explaining that we know, as well as you, that the whole thing as outlined above would scarcely be feasible.

But still, you know, is it necessary to let the British display *all* the enterprise and initiative? The Chemical Exposition does not carry nearly so far abroad its educational influence as American products are unquestionably worthy to be known.

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### HARMONY, INC.

(Continued from page 7.)

have not been so at heart, but we might as well have been for all the action which has been brought about.

Otto H. Kahn, returning from an extensive tour of Europe, says that he believes the crest of post-bellum perplexities has been reached among our late allies, and that, barring the unforeseen and the granting of reasonable credit facilities for essential purposes, recovery should proceed steadily. The great banker found everyone hard at work and governments in possession of well-thought-out, fixed policies for getting back to

normal prosperity. Europe has much farther to go than we have, only the difference is that she is on her way and—if it does not sound too pessimistic to say so—we have not been on our way. We have been limping. Let us allow that it is nobody's fault. In the final analysis this is about as true as anything which could be said of the situation, which is the result of a system which sometimes does not function as perfectly as at others. Let us assume that everyone acted in good faith, and proceeded "with firmness in the right" as it was given to them to see the right, and that each did but exercise the legally-provided prerogatives of his office in defense of what he believed to be the right. The point is *now*: What are we going to do about it?

Over in Hongkong, on the other side of this terrestrial globe, the British have succeeded in persuading—let us call it that—the local Hongkongian government to prohibit the import of any artificial dyes not manufactured by the British. That was just what they did, and the fact that the Hongkongese later modified this ruling to permit the importing of non-British dyes—including American—for re-export under such terms as to make this operation well-nigh impossible for local import houses, does not alter the original action or intent; nor does it alter the fact that our dye makers cannot carry on a trade which they had succeeded in building up to fair proportions.

You can't blame the British. But you can admire them and their unity of purpose and their teamwork, to your heart's content. Germany attained her successes in the markets

of the world by a whole lot of people *and* a government all working together, slowly and painstakingly, not caring how long they might be in getting there, but assured of the fact that they would eventually arrive—which they patently did.

There is little that we can do about it—we, the people, who are supposed to choose our public servants and exercise our sovereign rights of citizenship to see that those servants do our will. We are organized, it is true, into great parties—which professional politicians kindly run for us. We can't all take time off to personally see to conventions and such. Hence, the politicians. Hence, the wasted time and the endless bickering and the lack of efficiency. What we are even now accomplishing in the world's affairs is an illuminating example of the greatness of a people thus handicapped.

But it has not always been so and will not always remain so. A strong leader and teamwork are needed; that is all. We hope that these may be furnished to us. We are far from being helpless before the machinations of European diplomats, but our progress must be accelerated. The Edge export finance act was a long step in the proper direction.

Lack of fixed policies and agreement, plus two opposing forces in the Administration, has cost the dye men and the textile men the benefit of twelve added months of protective legislation, just as we have sometimes bowed before competitors in foreign markets through lack of settled policies for certain countries among our exporting gentlemen.

Dissension, Strife & Co. have too long dominated the field; the time of their dissolution must be hastened. We respectfully suggest to those who care to do their share toward it the chartering of Harmony, Inc., in this, the year 1920.

It will be found a profitable and kindly firm to work for.

## FOREIGN TRADE OPPORTUNITIES

Names and addresses of any of the firms mentioned below may be obtained by direct application to the U. S. Bureau of Foreign and Domestic Commerce, which compiled the list, or any of its district and co-operating offices. The bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers. Applications for particulars should refer to opportunity numbers; and in case information is desired regarding more than one, inquiry should be made on separate sheets.

32257.—A man in South Africa proposes to erect a woolen mill and wishes to purchase complete equipment consisting of scouring, dyeing, spinning, and weaving machinery. Quotations should be given c. i. f. port of East London, Cape Province. Payment, one-half secured by bank guaranty,

balance paid on arrival at port. Reference.

—o—

32829.—A merchant firm in Brazil desires to purchase and secure an agency for hardware, ironware, cement, coal, chemicals, dyes, cotton goods, chinaware, and glassware, arms and ammunition, electrical fittings, lamps, paper and stationery, paints and varnishes, sugar-mill machinery, agricultural implements, automobiles and trucks, and preserves. Quotations should be given c. i. f. Brazilian port. Usual 90 days' credit terms desired. References.

—o—

32819.—A commercial agent in Portugal desires to secure agencies from manufacturers for the sale of hosiery in cotton and lisle for men and women. Samples are requested. References.

—o—

32250.—A traveling salesman in South Africa desires to secure an agency from manufacturers of felt hats of all grades for men and boys. Payment, cash against documents. References.

—o—

32980.—A firm of manufacturers and wholesale warehousemen in England desires to secure the sole buying agency for own account, for cotton, wood, and silk piece goods, hardware, cotton, wool, and silk underwear for men and women, boots and shoes, and any other lines, subject to deliveries in large quantities only. Quotations should be given c. i. f.

English port. Credit terms, three months' bills date from date of arrival of goods. References.

—o—

32962.—A merchant in Spain desires to secure agencies for the sale of silk and cotton hosiery. Correspondence may be in English. References.

—o—

32956.—A commercial agent in Australia wishes to secure an agency for the sale of general drapery, manufactured silk goods, hosiery, underwear, braces, bath and dressing gowns, and men's garters. References.

—o—

33004.—The American representative of a firm in Colombia desires to secure an agency for the sale in that country of canned foods, drugs, toilet articles, chemicals, music rolls, cooking utensils, ribbons, elastic webbing, cigarettes, novelties, paints, textiles, laces, knit goods, glassware, chinaware, crockery, shoe findings, and cheap jewelry. References.

—o—

32982.—A merchant in Uruguay wishes to secure an agency for the sale of flannels, duck, linens, voiles, dress goods, shirtings, etc. Correspondence should be in Spanish. Reference.

—o—

32984.—A firm in Bulgaria desires to purchase and secure an agency for machinery and equipment for installation of steam dyehouse for woolen, cotton, and silk yarns and cloth; bleached and unbleached yarns, untwisted, Nos. 6 to



50; calicos, satins, fine woolen cloth, 80 to 90 centimeters wide, and raw cotton. Quotations should be given c. i. f. Varna. Payment will be in cash. Correspondence should be in German or Bulgarian. References.

—o—

32985.—A partner of a trading company in India is in the United States and desires to secure an agency and purchase for the sale in India of piece goods, paper, wire nails, hardware, textile machinery, especially cotton-spinning machinery, leather belting, and low-priced automobiles. Quotations should be given f. o. b. New York. References.

### ATLANTIC SUFFERS EXPLOSION AT BURRAGE WORKS

An explosion, the cause of which has not been definitely determined, followed by a fire, occurred at the Burrage, Mass., Works of the Atlantic Dyestuff Company, Saturday afternoon, June 12, resulting in the death of two of the company's most valued employees, and the destruction of a unit being devoted to the production of a special product.

The damage to the company's dye-producing units will be repaired temporarily at once; its stock of finished colors will doubtless enable it to take care of its current requirements until all dye-making units are again producing at capacity.

### COLORS FOR CHINAWARE WANTED IN SWATOW

The decoration of chinaware in the Swatow district pottery industry is done both before and after firing, and sometimes there is a second firing after the coloring process, but this is not common. Foreign colors are used, although some native makeshifts have been employed, owing to the scarcity and high cost of the foreign colors. Blue is the principal color, but red, white, green, and black are also used. The glaze is said to be produced by treating the article with a solution made of mussel shell lime, which has been burned with rice husks.

Manufacturers state that the annual market for colors amounts to between \$20,000 and \$30,000, and that they have had some difficulty in securing suitable ones. It is suggested that interested American manufacturers might find it to their advantage to look into the situation.

### PROSPEROUS CONDITION OF PORTUGUESE TEXTILE INDUSTRY

The textile industry of the Oporto district, in which district are located practically all the textile mills of Portugal, is at present experiencing a season of great prosperity. The end of the war brought a great diminution in the demand for the cotton goods of this district, and in consequence practically all of the textile mills were closed down for a time. Work was gradually resumed as the existing supplies of cotton goods were consumed and new goods were in demand.

The latest feature influencing the de-

mand for textiles in this district is the unparalleled demand for cotton goods for exportation to Spain. The depreciation of the Portuguese currency, in which these goods are purchased, enables Spanish importers to realize profits of from 50 to 100 per cent on textiles imported from this district and sold in Spain.

Owing to the recent decrees restricting the purchase of foreign exchange, the importation of cotton is rendered extremely difficult for importers here. In consequence it is probable that there will soon be a shortage of raw cotton. The consumption of cotton in this district amounts to about 7,500 bales a month, practically all of this cotton being imported from the United States. Textile manufacturers are buying up existing stocks of cotton regardless of price or exchange rate, but the supply on hand will be exhausted in about one month's time.

Under the laws of Delaware, the C. and P. Chemical Products Corporation has been incorporated under the laws of Delaware by professional incorporators. The capital of the new enterprise is \$5,000,000.

With a capital of \$10,000, the Glickman Chemical Works have been chartered under the laws of New York to manufacture perfumes. Headquarters will be located in Brooklyn, and the incorporators consist of C. Renfer, A. E. Glickman and I. W. Millins, of 193 Warfield Street, that city.

## Dye-a-Grams

The dye industry has the backing of the majority of consumers. It is up to the dye industry to maintain it.

—o—

We again point out: Descriptive data of some American types is scarce. We dislike to say it, but it may be that some will not stand description.

—o—

Excerpt from McKerrow's fourteen points: Article X—Never make a claim for goods you are selling unless you know it to be true.

—o—

Coal-Tar Dye H. R. No. 8078 has been changed to H. R. No. 0000.

—o—

Editorial excerpt: "The ink manufacturers are taking no chance." Which is evidenced by the lateness of so commendable a resolution.

—o—

If the REPORTER would Report all it could Report, we'd hear a lot of Reports that would not stand Reporting by this REPORTER.

—o—

We've heard of fourteen points before. But there seems to be a lot of common sense in those compounded by Mr. McKerrow.

—o—

The ink manufacturers' resolution is too late to help out a situation so besmirched with black.

We are assured that strikes, lack of transportation, and intermediates are responsible for keeping up the dye prices! Anything else?

—○—

We wonder if American dyes would be as high if German dyes were obtainable in unrestricted quantities!

—○—

Colorado may have textiles mines, but it is lacking in textile minds.

—○—

A New York firm has a type of wool green, U. S. A., on the market. We assume the "U" makes it American.

G. E. T.

### PEAT FIBER AND THE SWEDISH TEXTILE INDUSTRY

Swedish efforts to introduce peat fiber as a substitute article in the textile industry has come to naught for the moment. It is the consensus of opinion that the prices for extracting the fiber from peat moss must be economical before it will ever come into general use. Two factories, one in Denmark and the other at Partille, near Goteborg, both established during the war for the purpose of utilizing peat fiber, have had to close their doors in recognition of this fact.

One of the leading exponents of the uses of peat fiber was Prof. Gustaf Sellergren, of Stockholm. It was upon his application that the Swedish Government recently caused an investigation regarding the possibilities of utilizing the vast deposits of peat moss in Sweden in the textile industry of the country. The experts appointed to make the investigation have completed their labors, and, among other things, found:

1. Good textiles of peat fiber and "shoddy" can be manufactured and samples were demonstrated, but

2. The Swedish peat mosses can produce only 100 kilos of fibers and moss per day, which is not sufficient for commercial purposes.

3. The methods so far used in obtaining the fibers are too expensive.

The experts concluded by proposing that no further action be taken in the matter until the peat mosses could be examined carefully with regard to the amount of fiber contained, which work is within the province of the Swedish Committee on Geological Examinations and the Government's peat engineers serving in the Swedish Department of Agriculture.

Prof. Sellergren states, however, that his methods have not been tried, and that his patent rights for Sweden already have been sold. He claims to have some very fine samples of textiles made of peat fiber, and says that while his interest in this fiber has been cooled by the findings that some day he may return to the subject. He claims that Swedish peat mosses contain on an average of 15 to 20 per cent peat fibers and that it should be utilized in connection with the fabrication of peat litter.



## NOTES OF THE TRADE

Announcement has been made by the Societe Chimique des Usines du Rhone, of Paris, on behalf of its American subsidiary, the Rhodia Chemical Company, that Max Mueller has been elected president to succeed John J. White, who recently resigned that office.

The newly organized Czecho-Slovak Chamber of Commerce in America has opened offices at 106 East Nineteenth Street, New York City. E. F. Prantner, a well known writer on economic subjects, will be in charge.

A steadily growing demand for foreign paints, varnishes, lead and colors is reported from the Tientsin consular district of China.

A large dye works at Troyes, France, was practically a total loss last month following a disastrous fire. The damage to the works was considerable, and upwards of 2,000,000 francs' worth of dyestuffs was destroyed.

Contrary to despatches reaching this country, the first report of the British Dyestuffs Corporation, the merger of British Dyes, Ltd., and Levinsteins, Ltd., is not looked upon as disappointing, the directors pointing out that any benefits arising from the large issues of new stock last July are not reflected in the statement, which only covers the year ended October 31, 1919. Some time must pass before this new capital can make its contribution toward the company's earnings.

The activity which has been prevailing in the Scottish dye trade shows no signs of diminishing. It is still diffi-

cult to obtain some of the finer, brighter colors, and only a few small parcels of German colors have been received. These, however, came direct from Hamburg, instead of by way of Amsterdam, as heretofore. They were greedily gobbled up upon arrival.

After experimenting for two years, chemists connected with the British Dyestuffs Corporation have announced that the commercial manufacture of alizarin cyanin green is at last possible, through recent developments at the Huddersfield laboratory. The special characteristics of this color are that when applied on wool, chromed or unchromed, fine green shades are produced, which are exceedingly fast.

The annual report of the Society of Chemical Industry, Basle, Switzerland, shows a net profit of \$1,725,000, as against \$1,240,000 last year, and that the Society has declared a dividend of 15 per cent as against 27½ per cent last year. In addition to this dividend, however, a free bonus share is being allotted this year for every three shares held.

Experiments being conducted at the Textile Institute, Leeds, England, for the manufacture of artificial wool from cellulose derived from cotton waste, are reported to have been crowned with gratifying success. Although the product is merely a substitute for wool, its wearing qualities, particularly when used with other fabrics, are remarkable, and students at the Institute have succeeded in dyeing the product with no trouble.

The newest report of the Farbenfabriken vorm. Fr. Bayer & Co., Leverkusen, shows a net profit for the huge organization, of \$7,250,000 (at normal rate of exchange) as against \$3,270,000 last year. A dividend of 18 per cent was paid, as against 12 per cent last year and 20 per cent for each of the three previous years.



# AMERICAN DYESTUFF REPORTER

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# AMERICAN DYESTUFF REPORTER

A Weekly Publication devoted to

**DYESTUFFS, COLORS and ALLIED CHEMICALS**

*"Circulated Everywhere Dyestuffs are Used"*

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## GERMAN DYE OFFERINGS

**Textile Alliance Publishes List of Colors Available  
and Conditions Governing Purchase Under License**

**P**LENTY of interesting news there is for followers of the dye situation this week, but nothing which transcends in importance the official announcement, at last made, of the German dyes now available for importation into the United States through the Textile Alliance as a result of international governmental arrangement.

Full details of the offerings are given in Bulletin 37 issued by the Alliance under authorization by the War Trade Board. This bulletin, which was mailed to consumers late Friday, June 18, reached this office after last week's issue of the REPORTER was in the hands of the printer. By the time the present issue reaches its readers the opportunity for ordering from the assortments detailed in the bulletin will have passed, one of the stipulations being that all orders must be cabled to Paris not later than June 30. The Textile Alliance states in its announcement that after that date it will be unable to accept further orders under the present offer, although no reason for the shortness of

the period is vouchsafed. For these reasons the list of offerings will not be printed here.

However, it is unlikely that any consumers desiring these dyes failed to be well enough aware of their own individual needs to take advantage of the opportunity. It is expected, rather, that there will not be enough to go around, even though but six months' supply of any color can be ordered by any consumer. The specimen order blank furnished in the bulletin provides a special space for the noting of the minimum amount of any dye acceptable in the event of the aggregate amount of orders exceeding the supply offered, in which case the Textile Alliance will pro rate the amount available.

The prices given in the bulletin are f. o. b. German factory, and the dyes are grouped under their appropriate classifications of direct cotton colors, acid colors, chrome colors, basic colors, alizarine colors, sulphur colors, vat colors, developers and special products, offered by the following components

of the "ring": Farbenfabriken vorm. Friedr. Bayer & Co.; Leopold Cassella Co., G. m. b. h.; Badische Anilin & Soda-Fabrik; Farbwerke vorm. Meister, Lucius & Bruning; Actien-Gesellschaft für Aniline-Fabrikation; Kalle & Co.; Chemische Fabrik Griesheim-Elektron, and Chemische Fabriken vorm. Weiler-ter-Meer.

In addition to the prices, which are quoted per pound rate in original containers, the Textile Alliance provided opposite each quotation the serial number of the dye, for convenience in ordering; the approximate number of pounds available, and an estimate of the charges per pound for freight, royalty, insurance and duty, which was required to be included in the price. Any deviation from these estimates, above or below, was for the account of the purchaser, it was stated.

The prices per pound of the various colors range all the way from Betanaptylamin Gemahlen, a special product of Meister, Lucius & Bruning, at 14 cents, plus \$1.36 per pound for incidental charges to get it here, up to Rhodamine 6 G N Extra and Rhodamine 6 G D N Extra, offered by Badische at \$23.99 per pound each, plus \$1.01 per pound for freight, insurance, royalty and duty. The color subject to the highest incidental charges as set forth above appeared to be Badische's Indanthrene Rose B S Powder, selling at \$21.19 plus \$3.81.

None of these extra charges find their way to the Textile Alliance, which is legally incapable of making or retaining a profit on any transactions. The dyes offered were sold "without guarantee," but upon the representation of the German Government that they are of standard quality. Consumers were required to declare to the satisfaction of the War Trade Board that the order given in each case was only sufficient for six months' requirements of the purchaser, whereupon a license to import could be obtained from the Board by the Textile Alliance.

The bulletin notified consumers that if any dye proved to be defective at the time of shipment from the factory

and not as a result of damage en route, the Textile Alliance is entitled to be relieved from payment of the purchase price, in which event the purchaser will likewise be relieved, although insurance, transportation charges and duty, it was stated, may not be recoverable. In order to insure absolute fairness in this matter, notification was given that consumers ordering dyes in original packages may, upon request made before the dyes arrive, have their dyes held in bond and obtain samples for testing before withdrawal. Dyes so held, however, will be subject to delay and additional expense. In the case of dyes ordered in smaller quantities than furnished in the original containers, an extra charge over and above those already mentioned will be made. Such charges will cover actual expenses only.

The stipulation providing for six months' supply means six months after the order is delivered, and the bulletin is authority for the statement that shipments are now arriving from eighteen to forty days after they leave the factory.

The status of the Textile Alliance in all transactions is practically that of complete detachment save in the mechanical details of ordering, obtaining licenses and generally looking after the interests of purchasers. It acts as go-between, places orders, but assumes no responsibility for failure to live up to specifications and makes no profit. The estimated charges for freight, royalty, insurance and duty are for the convenience of consumers, who are required to forward full payment for their orders by cash, by approved bankers' guarantees corresponding in form to a specimen blank furnished by the Alliance, or by an irrevocable letter of credit established by an approved bank or trust company. Each purchaser, when placing his order, was required to indemnify and hold harmless the Textile Alliance, its officers, agents and employees, individually and collectively, from all liability arising or which may arise from or in connection with their orders, or resulting therefrom. Nothing is added to the quoted price per

pound of each dye but the *actual cost* of freight, insurance, duty and royalty, if any.

That puts the whole series of transactions squarely up to American consumers and the German dye manufacturers, with referees in the United States Government and the German Government—if any!

The Textile Alliance, Inc.—to give it its full title—was organized February 24, 1914, as a membership corporation under the laws of New York, and has no capital stock. Its affairs are under the general supervision of an executive committee consisting of H. D. Cooper, Arthur E. Gill and A. M. Patterson.

The committee having charge of all matters relating particularly to dyes and chemicals consist of Henry B. Thompson, chairman; Robert T. Baldwin, Frank D. Cheney, Dr. Charles H. Herty, Franklin W. Hobbs, August Merz, M. R. Poucher and Louis B. Tim. A subcommittee of the above consists of Mr. Cheney, Andrew C. Imbrie, Manton B. Metcalf and Mr. Tim.

The significance of the offering lies principally in the fact that were it not for the present restrictions maintained by still-existing war legislation, American manufacturers might now be saying to one another, "Meet me at the poorhouse," or words of similar import. As it is, those who have been objecting to the licensing feature of the dye bill may now have the privilege of observing how licensing, carried on by an organized body, will work out. The provision for placing imported dyes in bond is particularly happy, and should be incorporated with whatever legislation Congress finally enacts.

## DYE INDUSTRY VITAL TO AMERICA

### Professor Gerald L. Wendt Tells Federation of Women's Clubs the Need for Dye Factories in the United States

Dyes, as Vital to the Success of America, was the theme of an address by Professor Gerald L. Wendt, of the University of Chicago, delivered at Des Moines, Iowa, last week before the "Made in America" conference of the General Federation of Women's Clubs.

Captain Wendt, a member of the American Chemical Society, was in the Chemical Warfare Service during the war, and was therefore in close touch with the problems with which the chemist had to deal.

After telling of the great needs of men and materials, he laid especial stress upon the financial and legislative aspects of the question.

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The following officers have been elected to assume control of the Baltimore Paint and Color Works, which was recently incorporated under the laws of Maryland with a capital of \$150,000. Morris Shuger, president; George W. Gorsuch, secretary-treasurer, and E. W. Parlet, manager.



"America," he said, "from the financial point of view, needed education and still needs it. Of the 5,369 active corporations in Germany in 1912, almost seventeen per cent were engaged in chemical industry. At the head of the list of these income-producing powers were the dye companies, which earned at that time an average of 21.74 per cent on their invested capital annually. The close interest of the financial world was shown by the immediate effect on the Berlin stock exchange of new discoveries made in the research laboratories of the dye works and even of the universities. No such condition existed here. The great difficulty was the necessity of complex interlacing and interlocking of the chemical industries. For even a few dyes a large number of the crudes and intermediates are required, and no one firm can economically produce all the chemicals it requires. The challenge was thus a vast one, but it has been bravely met. Tariff and patent conditions had contributed to our lack of preparation. In 1882 we actually had a flourishing young dyestuff industry, but the reduction of the protection in the tariff act of 1883 forced most of the plants to close, and since then textile manufacturers have steadily opposed any effective tariff protection.

"But under the stimulus of war and the national necessity the capital invested in the chemical industries of this country grew by leaps and bounds—66 millions in 1915, 99 in 1916, 146 in 1917, 73 in 1918, 112 in 1919, and 66 millions in the first four months of the present year. And to-day chemists are as vital on the boards of directors of a large financial institution as engineers have long been. And so to-day America possesses a complete dye industry. The quality of these dyes is every bit as high as those formerly obtained from across the sea. True, only about 220 of the previous 900 dyes are as yet

being made here, but the range of color, the brilliancy of color, and the fastness to weather and to wear are as good as and often better than in the former German products. Already by 1917 our production was 46 million pounds annually—more than the previous importation. There is thus no magic in the German ability. We have accomplished the miracle ourselves. It is all a matter of plain every-day chemistry, of raw materials and of finance. There is no reason why we should not stand alone for years to come.

"Only two points need further attention. One is scientific education. Our waster of resources, such as the one-time burning of \$75,000,000 of tar annually in the beehive coke ovens, can be eliminated only by a wide realization of the possibilities of scientific development together with a constant supply of trained men working in research laboratories. Our schools have still a real task before them in providing fundamental scientific education to all our people and our universities in particular must not fail in their duty of providing trained men in investigation and creative work. The day of the bachelor's degree is passing; no man is trained in science nowadays without three or four years of training in true research spirit and method after he has finished his general college education.

"And lastly I touch on the one remaining vital point in determining the future of this great industry which is so necessary to our national life and our security. And that is the one weakness of our present situation. We are competing with a ruthless enemy who has in the past not hesitated to use the utmost means, fair or foul to kill off an American dyestuff industry—not because it meant dyestuffs, but because it meant explosives and real preparedness. Incipient dye plants were at once met with a reduction of German prices to far below cost price, even in spite of all tariffs, until the American compe-

titor was forced out of business when former monopoly prices were re-established. And this will happen again. In spite of our real achievement in the creating of this many million dollar industry, the amount of capital required in its establishment from nothing does not yet permit us to make these dyes at German prewar prices. And even were this possible, German methods of business would soon make short work of this real defense of our land. A tariff will not answer. I do not speak for the dye industry, with which I am in no way connected, but as an American and as a member of the American Chemical Society, which realizes the strategic position of the coal tar industries and welcomes such action as that taken by ninety-seven users of dyestuffs, textile and other firms, not one of them producers of dyes, who cabled to President Wilson at Paris an urgent appeal for the protection of the American dye industry by tariff and by a licensing system, and the cabled message of President Wilson to the Congress convened in special session which read in part as follows:

"Among the industries to which special consideration should be given is that of the manufacture of dyestuffs and related chemicals. Our complete dependence on German supplies before the war made the interruption of trade a cause of exceptional economic disturbance. The close relation between the manufacturer of

dyestuffs on the one hand and of explosives and poisonous gases on the other, moreover, has given the industry an exceptional significance and value.'

"The U. S. Tariff Commission has studied the problem, and its recommendations are incorporated in the Longworth Bill (H. R. 8078), still before Congress, which provides for an effective tariff reinforced by a license system whereby dyes not manufactured in this country can be imported, but dyes which we do make can be obtained only by license for a period of years. Only by such a system can the stability of our new industry be assured.

"And only with a well developed organic chemical industry, based on the dyes, can we be secure in a military or a medical sense. A million men springing to arms overnight are inspiring, but provide only hopeless murder without high explosives and poison gas. Universal military training has advantages and serious dangers, but it is useless without a supply of the materials of war. Fundamental preparedness, which can do no possible harm in time of peace, but will amplify and enrich our national life, depends on the flourishing existence of large bodies of trained scientists working in such critical industries as this one which we have now established at great cost, and whose importance I have to-day certainly not overemphasized."

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A. P. HOWES, President

LAURANCE T. CLARK, Editor

**"NONE SO BLIND—"**

In the normal course of events, would it be entirely natural for a young man who has been born heir, let us say, to several millions of dollars, and brought up by indulgent parents who have given him to understand clearly that the world was his Bluepoint and that there was "plenty more where that came from"—would it be natural for this young man to haggle over a few pennies? He would consider it several wide and yawning degrees beneath him; and even later in life, if he had met with no reverses and had been enticed into no particularly unfortunate speculations, it would be most unusual to find him choosing his investments with quite the same hungry attention to detail that is characteristic of the man who has built a fortune by slow effort with no assets but a brain and a pair of hands.

Caution and penetration have simply become second nature to the latter; he exercises these faculties almost automatically, whereas the other, even if he has inherited them along with his truckload of first liens and six per cent preferreds, soon allows them to grow rusty and dull unless taught to know their importance. It is not unnatural that this should be so. Cases of exceptional business ability—and, more important, real love of the business game—being passed on from father to son are fairly frequently met with; all the same, their percentage looks pretty sallow and pasty alongside of the other kind, and when they do occur it is usually because the father insisted on an early

training in estimating the number of monetary units in a dollar, pound, franc, ruble or mark.

The United States to-day is more than a little in the position of the wealthy and gilded youth—in which there is plenty of good stuff—whose Uncle Samuel has left him a fortune ample to let him travel around with the other boys in his set, satisfied to buy when his turn comes and generally keep his end up without worrying about whether his own descendants will likewise be able to maintain themselves on this footing.

That we are capable of assuming the lead so easily under the pressure of great necessity shows how inadequately we cultivate our natural wealth the rest of the time. We have always had so much to draw upon that what we have wasted never has been missed. We sometimes forget, as a nation, that the set we are satisfied merely to keep pace with achieves its pace by the practice of many apparently petty economies and much foresight. They have simply reached a point where they have to, while we have not.

When one stops to reflect that this nation could feed its entire population, including opposers of the Dye bill, with the food products which could be obtained from the State of Texas alone—that is, Texas under scientific and economical cultivation—it reveals only too clearly the position which our gilded youth could take among his fellows if he chose.

Now, it is, of course, hopeless to expect him to go the limit quite yet—he'll have to mature a little more before that time arrives—but the reason he has never realized anything like his full possibilities is because his guardians, once he began to affect long trousers and take an interest in the white lights, have in the main been miraculously endowed by nature with a wonderfully perfect vacuum in that phrenological region commonly set aside in man for the national pride and ambitious convolutions.

There are plenty of builders in the land who realize full well what we



shall do when our government is again composed of other true builders instead of expert legislation jockeys—if it ever is—of men whose majority consists of fearless thinkers and whose foresight and ability for teamwork approach somewhere near the foresight and teamwork possessed by the founders of this nation. They realize full well what Europe achieves with less in the way of resources, and that even working with 100 per cent efficiency the process of achievement is so painfully slow that men may spend their entire lives in an effort to build without seeing an advancement very great compared with the total distance to be traversed. Only the superficial thinkers believe that we have accomplished wonders, because they invariably figure on the basis of a generation or two, instead of a nation's lifetime.

Because he is a true builder, gifted with a foresight which does not end with the present decade—or even century—and because he has successfully

demonstrated his building principles, what John T. Queeny, Chairman of the Board of the Monsanto Chemical Works, has to say regarding our wasted opportunities ought to be distinctly worth listening to. In a letter to this publication, in which he refers to a recent article, he states:

"This article indicates that the writer of it . . . realizes what we have actually accomplished during the past five years, and what we could have accomplished ten or fifteen years ago if Congress had given the chemical industry in this country the protection which the World War has given us. *There is nothing the Germans did in their forty years but what the manufacturers in this country can do in less than one-fourth of that time.*"

While those whose duty it is to see that our nation has at least an equal chance with other nations have been splitting legal hairs and bargaining with one another for the passage of measures designed to further personal

popularity above all things, Mr. Queeny has been hard at work in a chemical plant. Hence he realizes the truth of his statement, and other big manufacturers realize it also. But the men to whom they must look for co-operation for the ultimate benefit of all of us have been too busy to educate themselves on such trifling subjects as the sources of this nation's future power. They are, willfully or otherwise, too blind to see that unusual protection for certain lines is the first step toward United States leadership. They are unable to see that, granted a start, our manufacturers will do the rest and place us where we belong.

Mr. Queeny further writes:

"Even now Congress hesitates to give needed protection for further development. It seems that the last five years has not been a sufficient lesson, we regret to say."

There's the rub! The signs have been so plain that a child could understand them. More than mere understanding, however, is expected from grown men, supposed to further the interests of this nation in every honorable way; action along the lines indicated by that understanding is demanded. And the present delay of eighteen months does not cover the legislative shortcomings of our government.

"None so blind as those that will not see!" wrote Mathew Henry during the latter part of the seventeenth century. That is why, Mr. Queeny, the lesson has not been sufficient. And unless some sort of a lesson in attention to the real business of Congress can be driven home, we are inevitably going to fall behind as a nation. The time has come when we must begin to look after our inheritance a little.

Announcement has been made by the Butterworth-Judson Corporation, Doremus Avenue, Newark, N. J., that the company will erect a new one-story building at its chemical plant, 47 x 84 feet. The cost of the structure will be in the neighborhood of \$15,000.

## VELVET FINISH ON FANCY CASSIMERES

This finish depends considerably upon the fulling mill to give the fabric the felt necessary which afterwards, by means of suitable gigging, napping and brushing, is transformed into the soft velvety-feeling nap. A dense nap is required, and to ensure this, the felt must be reasonably close and perfect, as it is from the felted surface of the structure that the nap must be raised, and not from the threads, since otherwise a tender fabric will be the result. The amount of the felt produced depends, as we might say, entirely upon the quality of the wool used in the construction of the fabric; for which reason the perfect final finish depends upon the careful selection of the stock, although to a certain extent the weave and the twist of the yarn must be carefully taken into consideration.

### SHODDY MAY BE USED

A long-stapled wool should never be used, from the fact that it is the protruding ends from the warp and weft, as used in construction of the fabric, which must produce the characteristic nap on the fabric, and the more of these protruding ends there are in the yarn the thicker the nap possible to be raised from it. It is for this reason that the use of shoddy, if carefully selected, will be permissible, provided the best grade possible to procure is used, since such actually may help towards producing a density of nap, if the life and felting quality of the shoddy are not impaired. However, it must be strictly understood that we refer only to an all-wool shoddy—live fibers—not to shoddy produced from rag-stock previously fulled (i. e., mungo), or possibly such as contains a percentage of cotton, and, if used, will give a less satisfactory result, since the cotton fibers, having no felting quality, will give less body to the fabric structure for the gig in turn to work upon.

If the fabric structure under operation will permit it shrinking slightly in length during the process of fulling this

will be of great help in producing the required result. After the proper fulling the structure is obtained, cleanliness and freedom from all trace of soap are necessary, remembering that the use of Fuller's earth at the final raising should never be omitted, for this will impart to the goods a certain soft and silky feeling which cannot be obtained in any other way. When this part of the work has been satisfactorily performed, and the goods are ready to come out of the washer, the goods are taken at once to the rolling and stretching machine and rolled tight and smooth.

After leaving them on rolls overnight, they then are in the best possible condition for the gig, free from creases or wrinkles, and just about right as to moisture. Provided the fabric reaches the gig in too dry a state, then during the process of gigging some of the fibers will be torn by the teasels out of the fabric structure, and be washed in gig-flocks, instead of contributing to the perfection of the nap. Besides this, there will be a danger of the teasels cutting the threads, whereas a proper moisture serves to protect them.

#### METHOD OF GIGGING

Upon the proper gigging depends the entire success of this velvet finish, provided the proper selection of stock, weave, fulling and scouring has been properly attended to. In starting the gigging, old worn teasels must be used, rapidly increasing to sharper work, and this with frequent reversing. The change in the sets of teasels used is selected in such a way that they will pick up the fibers from the felt easily—i. e., so that we are not compelled to apply the cloth hard to the teasels, thereby causing them to drag forcibly, and in turn lay the nap. For this reason teasels sufficiently sharp must be used, so that they will raise the nap by a moderate fabric contact only. The cloth is applied lightly to the teasels to get this velvet nap, changing the work as soon as the teasels fill up with flocks, for it must be remembered that the fin-

ish desired is a standing nap in the order of a plush, in place of laying the nap, as required in connection with fabrics like beavers; a feature prevented by the frequent reversing of the goods or of the motion of the cylinder of the gig, as the case may be. If two-cylinder gigs are used, the cylinder are run in opposite directions.

To determine when the goods are sufficiently gigged, the felt on the face of the cloth must have been raised so that the threads and patterns will show up clearly when the nap is parted or cut away. The latter half of the gigging process must be done more moist than is usually the case in connection with other finishes, and therefore the goods must be evenly and generously sprinkled.

No work must be done after turning the fabric the last time, except to barely turn the nap, finishing the clearing up, and thus the process of gigging proper, before the cloth is thus turned the last time. If dealing with a napping ma-



chine in place of a gig, then the first run on this machine must be given reversed, and subsequent runs the right way. The workers of the napper must be run at their highest speed, and after the goods have had two runs, the cloth is brought in contact with the worker as far as can be done safely, and the sprinkling can be used without stint. Two runs thus given should leave the goods in good condition.

After the gigging or napping is completed, the goods are taken to a brush gig, which practically is a wet gig with all its appointments as to water supply, whereas its cylinder is clothed with wood-fiber brushes. The pieces are here given at least four runs with lots of water, and then rolled up again on the gig and left again until next morning, when they are folded off and extracted for the dryer, which should be speeded sufficiently slow to do the work without stopping. In the latter instance the pressure and heat of the rolls are liable to mark the goods, by the nap being pressed down and thus set, and when afterwards the brushes of the shear cannot raise the nap on such places of the fabric properly, for the shear blades afterwards to trim the nap uniformly at such points.

#### THE FINAL RAISE

After drying, and before shearing, the cloth should be given a few runs upon an up-and-down gig, and this with fairly good teasels, a process which will give to the nap a lofty effect by lifting and thus softening it up, correcting at the same time any tendency of the nap to lie in the wrong direction by the slight work given it on the last turn of the wet gigging.

In place of this dry gigging, some finishers prefer the brush, using in connection with this procedure a little steam, which will loosen all the fibers and assist the brushes on the shear to do their part of the work more effectually. During this shearing care must be exercised to get the nap of the goods even and also not too low, for while the goods

are to show the pattern plainly, they at the same time must have a nap left on them to give them the soft velvety feeling. The goods must not be stinted in the number of runs. The raising brush on the shear should not be set too hard, or the result will be to turn the nap back too far, instead of causing it to stand so that the shear blades can do their work properly; again, the back or laying brush must be clear, and well applied, so as thoroughly to lay the nap at each run.

If specking is necessary, it should be done at this stage, giving the goods again a brushing before they are inspected, after which they are again steam brushed, and in turn are then ready for the press. They are pressed with the face to the bed as hard as possible, and are then given a steam brushing. The amount of steam used should be very light, and the brushes also should not be on too hard. The number of runs to be given here depends upon the conditions of the pieces as required in the market. The goods then present sufficient smoothness so that we can easily distinguish the way the nap was finished; the fabric will be free from any harshness in handle, present a most beautiful face, and at the same time be up to strength in its structure. —*Posselt's Textile Journal*.

#### USE OF CIBUCAO WOOD FOR DYE IN HONGKONG

The business of the import of "cibuc" wood from the Philippines and its manufacture into a stain or dye in Hongkong is in the control of a close combination of five Chinese firms in Hongkong, of which Yuet Loong Chan & Co., Hongkong, is the principal. The wood, called "Soo Mook" in Chinese, comes almost exclusively from Iloilo and vicinity in the Philippines. It is a red, fairly soft wood, and is cut and cured in short lengths and imported in bundless. It is bought and sold by the picul (133 1/3 pounds), its price in Hongkong at the present time being about \$2.10 local currency or substantially the same in gold, per

picul. The stain or dye manufactured from the wood is a red ink or paste used largely by the Chinese for inking the small "chops" or seals employed by them as the means of affixing their signatures to written instruments of a formal nature.

The color in the wood is extracted and used variously by the Chinese as an ink, a stain, dye, and paint color. The wood is boiled and the resulting water solution is further boiled down to a sirup-like consistency. Whiting is then mixed with it for most purposes, the resulting paste being the preparation used as an ink for the native "chops." As a dye the stain is used for coloring cheap Chinese papers, notably the paper used in the manufacture of fire crackers, ceremonial papers of various sorts, and for the very cheapest sort of Chinese stationery. The whiting concentrate also is used as an adulterant for European red paints. The color liquor also is used at times for mixing with better quality of red dyes for coloring native cloths.

The whole process of extracting the dye is crude and wasteful, but the business is closely controlled by this syndicate, which is strong enough to regulate the volume of the manufacture and the price of the product. It is doubtful, therefore, whether it would be practicable to transfer the industry to the Philippines and have the dye or stain manufactured there for sale in China, although apparently there would be a considerable saving in freight and other expenses by so doing.

## THE MANUFACTURE OF LAKES

By ARTHUR A. RAUCHFUSS  
(*Calco Chemical Company*)

The quantity of dyestuffs used for the lake trade is very large. This is due in part to be greater quantity of dyestuff required to make a pound of finished lake in comparison with the amount used in the textile industry to obtain a deep shade.

The purpose of this article is to give a brief resume of the lake manufacturing industry, without going deeply into technical details.

The lake pigments are formed in four different ways, namely:

1. By absorption;
2. By precipitating the color on a base;
3. By precipitation resulting from the combination of suitable acid and basic dyestuffs;
4. By the "development" of colors, which takes place in the course of precipitation.

The precipitating agents may be classed as follows:

- (a) Barium chloride, for all acid and most of the direct cotton colors;
- (b) Tannic acid and tartar emetic, for basic colors;
- (c) Lead salts, for such dyes as eosines, etc.

Instead of using the barium salts, calcium or strontium salts may be used in some cases to give bluer shades.

*Bases.*—The bases on which the

colors are precipitated vary according to the results desired.

Aluminum hydrate is used alone when very bright and transparent colors are desired. It grinds well, and is used especially when one color is printed over another.

Blanc fixe (precipitated barium sulphate) has great covering qualities, though it does not work well alone when used in printing inks. Combinations of aluminum hydrate and blanc fixe are therefore used quite extensively, as the hydrate increases the working qualities of the blanc fixe. In this way widely different results can be obtained.

Aluminum hydrate and blanc fixe, and combinations of the two, are generally the only bases used in colors made for printing and lithographic inks. These colors can then be changed when ready for the press by adding lithopone, zinc white, or magnesia, which have been ground in linseed oil varnish.

When lakes are made up, their future use must always be considered. This applies both to the character of the dyestuff as well as to the base. They may therefore be divided into the following classes:

1. Lithographic and printing inks;
2. Paint colors;
3. Wall paper and colors for the paper industry;
4. Lime colors.

The colors for lithographic and printing inks must be made very soft, so that they will grind up very fine in the linseed oil varnish. As a general rule, they should be fast to light, and for lithographic purposes should not bleed in water.

Paint or oil colors should be made so that they shall have maximum covering qualities and good fastness to light, and shall not bleed in oil.

Colors for use in the paper industry are generally made on bases of satin white, blanc fixe or China clay, the last two being the ones most used.

Lime colors must be fast to the action of lime, and must mix readily with water. They are generally used for painting cement work of various kinds.

A description of the manufacture of a purple lake may serve as an illustration of the processes required to put a dyestuff in proper condition for use on a printing press. This will give an idea of the number of operations and the amount of handling necessary before the lake can be used.

A base is made of aluminum hydrate by the addition of a solution of sodium carbonate (commonly called soda ash) to a solution of aluminum sulphate (alum). The white precipitate formed is allowed to settle to the bottom of the tank and the water on top is then drawn off. This operation is called "washing." After the base has been sufficiently washed, a solution of methyl violet is added to it. The mixture is then thoroughly stirred and the dyestuff precipitated on the hydrate by the addition of solutions of tannic acid and tartar emetic. The color is then washed several times to remove all excess of the chemicals formed, and pumped into a press. The color is now in a hard cake containing about 50 per cent water. The cakes are put on trays and placed in the drier, where a warm current of air soon drives all the water off. Care must be taken not to attempt to dry too fast, as the color will then be hard. The lumps of color are then pulverized, and the resulting fine powder is mixed with the necessary amount of linseed oil varnish and put on a roller mill. This mill has three rollers that have a crushing as well as a grinding action, and the color is run through until no signs of any coarse particles can be detected by putting a thin layer of the ink on a glass plate. When this point has been reached the color is ready for the press.—*M. O. H. Bulletin.*

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Announcement has been made by the United Color & Pigment Company, Newark, N. J., that the company's Pacific coast representatives are the L. H. Butcher Company, with offices at 341 Montgomery Street, San Francisco; 1906 L. C. Smith Building, Seattle, and 461 Pacific Electric Building, Los Angeles.



## Dye-a-Grams

Congressional ability for "fixing" may have something to do with the number of enemies the dye bill has.

—o—

Senator Thomas said: "I cannot conceive of a more cold-blooded proposition." His success causes us to voice these sentiments, absolutely!

—o—

We may console ourselves with the fact that a lot of other "things" may be "shelved" ere the next session of Congress.

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Shipping American dyes by truck is to be preferred to shipping truck from Germany.

—o—

The Editor claims that "Senator Thomas painted a highly affecting picture." And we bet he could paint a German propagandist to look like a Puritan.

—o—

The German debt to the world has been estimated at one thousand million marks! How many marks is St. Peter holding against them?

—o—

If the German dye supply is a mere phantom, why not put the dye bill into effect and make it an assured fact?

—o—

When a man is willing to buy German dyes "at any figure" he must want to find an outlet for excess profits!

G. E. T.

To manufacture textile fabrics, Jednos, Inc., has been incorporated under the laws of New Jersey with a capital of \$150,000. Headquarters of the new enterprise will be at Dover.

## CHLORINATED WOOL

Garment dyers are sometimes at a loss to understand why a wool garment dyes unevenly. This may be due, explains Herbert P. Pearson in the *Journal of the Society of Dyers and Colorists*, to the fact that some of the wool was treated with chlorine during the process of manufacture to prevent shrinkage and felting.

"The most remarkable chemical property of chlorinated wool," the author says, "is its action on dyestuffs. If untreated wool and chlorinated wool be dyed together in the same bath with a direct dye, the latter becomes much more deeply dyed than the former." The author gives no explanation for this fact.

Mr. Pearson also discovered during his investigations that "when dry chlorinated and dry unchlorinated wool are rubbed together a charge of electricity sufficient to violently disturb the gold leaves of an electroscope are generated on each, whereas two pieces of ordinary wool, even of different class, give rise to no charge.

"To distinguish chlorinated from unchlorinated wool the two simplest tests are physical in character. If a single drop of water be placed on a piece of chlorinated fabric, it is absorbed fairly quickly and the wet-out place has a circular contour, while in the case of ordinary wool the drop is absorbed very slowly and the contour of the wet-out place is irregular. Further, on wetting out chlorinated wool and rubbing together two surfaces of it between the finger and thumb, a very characteristic 'scoop' is felt. After a little experience these two tests are sufficient, though they may be supplemented by

two others. The first depends on the dyeing properties of chlorinated wool already mentioned, comparative dyeings with untreated wool showing an unmistakable difference. The second is based on the phenomenon that dry chlorinated and dry untreated wool when rubbed together produce a charge of electricity on each.

"The treatment with chlorine of wool fabrics intended for garments that have to be washed has one very grave defect, and that is the tendency—I might say certainty—of the garment to wear badly. They tend to wear into holes at the elbows and knees and other places exposed to hard treatment. It is not merely a case of the rotting of the fiber, for under certain conditions the treatment actually increases its tensile strength. The cause, most probably, is simply that the treatment with chlorine removes the felting property of the wool. The fibers of the ordinary wool become felted together more and more with each successive washing, thus increasing the strength of the fabric. In the case of chlorinated garments this felting does not take place. On the contrary the mechanical action of wearing and washing tends to loosen the

fibers one from another until they eventually come apart entirely."

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### NOTES OF THE TRADE

Announcement has been made to the trade to the effect that the Hanrick Mills, of Gaffney, S. C., have increased the capital of this organization from \$250,000 to \$500,000.

To act as chemists, druggists, etc., D. Himadi, Inc., has been incorporated under the laws of New Jersey. Headquarters will be located at Lodi, that State. The capital is \$125,000.

Announcement has been made that the name of the Thomasville Hosiery Mills, of Thomasville, N. C., has been changed to New London Hosiery Mills. The capital stock of the company operating the mills has been increased from \$15,000 to \$50,000.

Manufacturers of Charleston, W. Va., and Saginaw, Mich., comprise the elements of the Nitro Products Corporation, recently incorporated to establish a large factory at Nitro, W. Va. The capital stock of the new concern is placed at \$500,000, and the officers include J. P. Pitcher, of Saginaw, and C. P. Miller, of Charleston.

Hemingway & Company, the manufacturers of chemicals and colors, Bound Brook, N. J., are planning the erection of a series of three and four-story additional buildings at the plant. Cost of the improvements will be in the neighborhood of \$125,000.

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### BROWN & WIGLE CO. BECOME BROWN WOOLEN MILLS, LTD.

Announcement has been made by the Brown & Wigle Company, Kingsville, Ontario, to the effect this firm have taken out a new charter and have been incorporated under the firm name of The Brown Woolen Mills, Ltd. The capital of the new organization is \$150,000.







PERIODICAL

